CONSTRUCTION NEWS

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RAILWAYS.

(*Denotes *that this work is advertised in Engineering News.*)

BUCKHANNON & NORTHERN R. R.—The right of way for this road has been secured, with the exception of that across six farms for which condemnation suits have been filed in Monongalia County. J. T. Blair, 548 Oliver Bldg., Pittsburg, is Secy.

CAROLINA, CLINCHFIELD & OHIO RY.—This road is now making surveys of two routes for the proposed extension from Dante, Va., to connect with the Big Sandy Division of the Chesapeake & Ohio at Elkhorn City, Ky. Ward Crosby, Johnson City, Tenn., is Prin. Asst. Engr.

HARRIMAN LINES.—Ownership of the North Coast R. R. was formerly acknowledged and provision for consolidation of the Oregon R. R. & Navigation Co. and of its subsidiary companies and the North Coast was made, in articles of incorporation filed by Harriman officials of a new holding company to be known as the Oregon-Washington R. R. & Navigation Co. The incorporators are R. B. Miller, traffic manager of the Harriman lines in the Northwest; H. J. Buckley, Vice-Pres. of the Oregon Railway & Navigation Co., in charge of operation, and R. Koehler. It is authoritatively stated that the organization of the new holding company means a new bond issue, which will be devoted to improvement of existing lines and in the prosecution of further construction.

ILLINOIS.—The Bloomington, Decatur & Champaign R. R. has been incorporated to run from Bloomington through the counties of McLean, Dewitt, Macon, Platt and Champaign. The capital stock is $3,525,000. B. E. Bramble, W. H. Carnahan, Geo. R. McComb, L. Campbell and E. S. Cole, all of Champaign, Ill., are directors.

MISSOURI PACIFIC RY.—Press advices are to the effect that the Kansas, Nebraska & Dakota Ry. will be practically rebuilt. A contract has been closed with the L. J. SMITH CONSTRUCTION CO. to put the line in working condition. The work will begin just as soon as the equipment can be assembled. This company has bought the old plant of the Riverside Iron Works, Kansas City, Kan., which will be used to repair its engines and equipment.

NEW YORK.—The Halite & Northern R. R. Co. has been incorporated. It is to operate in Halite, Livingston County, on the line of the Pennsylvania R. R., to a connection with the Genesee & Wyoming R. R. at a point about one-half in a southerly direction from the station therof and will be approximately 3.22 miles long. The directors are: William A. Hazard, Edward W. Brown, Ashley Bigelow and Duncan A. Holmes, of New York; Wilton W. Sealby, Harry S. Keating, of Brooklyn; Gouverneur O. Parks, of Sheepshead Bay; Edwin M. Bennit, of Hackensack, N. J., and Herbert G. Buckley, of Corona, Queens Borough, N. Y.

NORTHERN PACIFIC RY.—Howard Elliott, Pres., is reported to have stated that work on the cutoff from Glendive to Helena by way of the White Sulphur Springs would be commenced soon. W. L. Darling, St. Paul, Minn., is Ch. Engr.

PENNSYLVANIA SYSTEM.—Cumberland Valley R. R.—A survey is being made between Hagerstown and the Potomac River, the object being, it is understood, to get a lower grade to the Potomac. One line cuts through Halfway, crossing the Williamsport turnpike and the Hebrew cemetery, to a point above the bridge over the Potomac. A new bridge will have to be erected over the Potomac. G. C. Koons, Chambersburg, Pa., is Engr.

PHILADELPHIA & READING RY.—A considerable tract of land has been purchased at South Bethlehem, Pa., which will be utilized in making additions to the yards. Wm. Hunter, Philadelphia, Pa., is Ch. Engr.

SOUTHERN PACIFIC R. R. CO. OF MEXICO.—An amended concession has been granted by the Mexican Government to this company. One of the provisions is that extending, for a period of ten years, the time in which the construction of the several lines of the Mexico system shall be finished. It is also provided that the roads shall occupy an exclusive territory extending 20 kilo. on either side of them. A subsidy of $12,500 will be paid by the Government for each kilo. of road constructed. During the next five years, dating from Nov. 1, 1910, the company shall have constructed at least 300 kilo. of track, and the remainder shall have been finished within the five years following.

The several concessions for constructing lines of road that were held by the Harriman interests are merged into the new concession. They cover the following: A line from Orendain to Guadalajara and from Guadalajara to Mexico City, passing through the cities of Zamora and Morelia; a line from the Santiago River to the city of Tepic in the territory of Tepic; a line from Tepic southeast to the city of Magdalena; as many branch lines as the Southern Pacific may think desirable to construct, leading from its main line between Navajoa and Guadalajara, providing such branch lines do not exceed in length 150 kilo. each; a line from Tonichi north to a point on the boundary line of the United States between San Bernando and Agua Prieta; a line starting from the junction of the Yaqui and Moctezuma Rivers, passing through Moctezuma and Cumpas and terminating at Nacozari; a branch line starting from a convenient point on the proposed line between Tepic and Magdalena and terminating at Barranca; a line starting from the station of Empalme, near Guaymas and extending west to the station of Guaymas; that part of the line still to be constructed between Empalme and Monio; a line starting from kilo. 422 on the Sonora R. R. and extending towards Nogales.

TEMISKAMING & NORTHERN ONTARIO RY.—This company has been authorized by the Ontario Government (which owns the railway), to construct an extension of 30 miles into the Porcupine gold district, from a point on the main line near Kelso. This will cost about $450,000. J. L. Englehart, Toronto, is Chairman of the Railway Comn.

TERRE HAUTE & SOUTHEASTERN RY.—Company has been incorporated. It is proposed to construct a railroad from a point at or near Quaker Hill, in Edgar County, Illinois, through the counties of Edgar, Vermilion, Iroquois, Kankakee, Will and Cook, to a point at or near Chicago Heights, in Cook County. The directors are: Michael D. Lawlor, Oliver A. Bestel, Emil A. Stake, of Chicago; Charles G. Fleager, of La Grange,, and Frank H. Stanwood, of Oak Park, Ill.

ELECTRIC RAILWAYS

WATERBURY, CONN.—Surveys have recently been completed by the Connecticut Co. for a line about 6,000 ft. in length to connect the Highland Div. of New York, New Haven & Hartford R. R. at Waterville with the proposed extension of double track of North Main St. It is intended to use this line for the transfer of freight from the railroad to the yards of the Chase Rolling Mill Co. on North Main St. W. G. Smith, 51 Leavenworth St., Waterbury, Conn., is Engr.

WATERBURY, CONN.—FRED T. LEY & CO., INC., of Springfield, Mass., have recently been awarded the contract by the Connecticut Co. for about 4,000 cu. yds. of rock excavation for the extension of Summit Siding on the Cheshire Line.

BUFFALO, N. Y.—The International Traction Rys., Buffalo, which was recently incorporated with a capitalization of $100,000 as a subsidiary of the International Ry. Co., will build an electric railway in Abbott Road from Cazenovia St. to the southerly city line. The incorporators and directors are Robt. L. Fryer and O. P. Letchworth, Buffalo; Morris Cohn, Jr., Niagara Falls; Nelson Robinson, New York City; Thos. E. Mitten, Chicago, and Edmund B. Osler, Toronto, Ont.

NEW YORK, N. Y.—Subways.—See item under Miscellaneous Contracts: "Subways."

SYRACUSE, N. Y.—Plans are being considered by the Syracuse Rapid Transit Ry. for the double tracking of its line 693 through Liverpool. C. Loomis Allen, Syracuse, is Gen. Mgr.

LAMBERTVILLE, N. J.—It is reported that the Business League has given its endorsement to the projected trolley freight line between Lambertville and Trenton.

BUTLER, PA.—On Nov. 29 the Allegheny & Northern Ry. Co. awarded to JOHN SCHAFFNER, of this place, the contract for the grading of a large section of the line between Evans City, Butler County and Hammerville, Allegheny County. The new trolley road is to pass through Callery, Mars, Valencia and Bakerstown, a route 21 miles in length, to connect the Allegheny Valley trolley lines at Harmarsville with the Pittsburg & Butler at Mars and the Pittsburg & Harmony and the Butler & New Castle at Evans City.

The Western Maryland Ry. has announced that within the next sixty days the contract for 20,000 tons of open-hearth steel rails of heavy make will be awarded. The aggregate expenditure of $600,000 will result. The new rails are to be laid on the Cumberland-Connelsville extension.

NEW CASTLE, PA.—An extension of six months' time from Dec. 1, in which to begin construction on its line has been granted the New Castle & Beaver Falls St. Ry. Co.

EDDYSTONE, PA.—According to press reports, H. Silverman, Philadelphia, Pa., is interested in the erection of an electric railway from Eddystone to the old rifle range in Tenicum Township.

PITTSBURG, PA.—Application will be made to the Governor of Pennsylvania on Dec. 27 by O. B. Higley, C. W. Clarkson, J. H. Corbitt, W. G. Weinier and J. E. White for a charter to construct an electric line through various sections.

EVANS CITY, PA.—The Allegheny & Northwestern Ry. Co. is making arrangements for the construction of an electric line from Evans City to Harmarville, a distance of 24 miles. The estimated cost is about $400,000. J. G. McPherson, Philadelphia, is Pres.

PITTSBURG, PA.—REAGAN & LYNCH, Uniontown, have been awarded the contract by the West Penn. Rys. for extending its line from Juniata to Bitner.

ROANOKE, VA.—The LUCK CONSTRUCTION CO., Roanoke, has been awarded the contract for the construction of a railway from Ridgeway, Va., to Spray, N. C., a distance of about ten miles.

NEW CUMBERLAND, W. VA.—Through its attorneys, Hart and McKenzie, Wheeling, the Pittsburg, Steubenville & Wheeling Ry. Co. has made application for a franchise to build its line through Hancock County.

CHARLOTTE, N. C.—Press reports are to the effect that the Southern Power Co. has purchased the entire interests of the Charlotte Electric St. Ry. Co., capitalized at $1,125,000, and the Charlotte Gas & Electric Co., capitalized at $225,000, thereby securing the street car system comprising about 25 miles of track. The cost is estimated at about $2,000,000.

ATLANTA, GA.—The construction of a line from Atlanta to Decatur all the way through Stone Mountain is contemplated by the Georgia Ry. & Electric Co. W. H. Glenn, Secy. and Mgr. of Rys.

DEMOPOLIS, ALA.—Construction work will soon be started by the Birmingham, Demopolis & Pascagoula Ry. on its line from Demopolis to Linden. W. Finnell, Demopolis, Ala., is Engr.

SUMTER, ALA.—The Alabama, Tennessee & Northern R. R. has finished laying 12 more miles of track from Emelle to Sucarnoochee Creek.

JOHNSON CITY, TENN.—Application has been made by the Johnson City Traction Co. to the City Council for a franchise to construct a 1½-mile extension of its tracks on Main St., to the Normal School.

FRANKFORT, KY.—Application has been made to the City Council by the Bowling Green & Northern R. R. for a charter to build a line from Bowling Green to Leitchfield. The incorporators are: B. F. Gardner, M. H. Crump and C. Felton.

COLUMBUS, OHIO.—The Ohio Central R. R. Co. will at once start the work of rebuilding the West Broad St. depot, which was almost totally destroyed by fire recently.

LIVERPOOL, OHIO.—An interurban connection between Beaver Falls, Pa., and East Palestine, via Columbiana, will be made at an early date. The road, as projected, will start at Beaver Falls, passing through Darlington to Columbiana or Leetonia, 15 miles, then through Waterford to East Palestine, ten miles.

INDIANAPOLIS, IND.—WELCH & McGREGOR have been awarded a contract for placing the ties and laying the rails on the Beech Grove interurban line between this city and Beech Grove.

INDIANAPOLIS, IND.—Articles of incorporation have been filed by the Porter, Chesterton & South Shore Ry. Co. to construct an electric railway from Porter and Chesterton to Balleytown. The directors are C. N. Wilcoxen, F. J. Lewis Meyer, F. M. Childs and J. M. Chillas. The company is capitalized at $40,000.

RICHMOND, IND.—The Richmond Commercial Club, which is promoting a traction line to reach Union City, Ind., on the north and Cincinnati on the south, is much encouraged over the outlook. Charles L. Henry, President of the Indianapolis & Cincinnati Traction Co., has promised to bring the matter before the directors of that company at the next meeting.

DES MOINES, IOWA.—According to press reports the Des Moines Terminal Co. is building a new spur from the old starch to a gravel bank about forty acres in extent and about half a mile to the east.

ESTERVILLE, IOWA.—A line to Blue Earth, Minn., is under consideration by Chicago men. Surveys will be commenced soon.

WEBSTER CITY, IOWA.—The Fort Dodge, Des Moines & Southern R. R. Co., according to press reports, have purchased the Crooked Creek Ry. and propose to equip it for electrical operation.

OMAHA, NEB.—We are advised that The Omaha & Western Iowa Traction Co., office, No. 3901 North 18th St., Omaha, is in the market for 90 miles of electric equipment for its traction line.

RAPID CITY, S. DAK.—An electric line to Belle Fourche, Deadwood, Spearfish, Lead, Sturgis and back to Rapid City is under contemplation by Eastern capitalists.

HELENA, ARK.—An offer has been made by the business men of this place to T. L. Dubbs, Supt. of the Yazoo & Mississippi Valley R. R., at Memphis, in which they agree to lease that branch of the Yazoo & Mississippi Valley R. R., running from Troters Point, opposite Helena, to Jonestown, Miss. If the offer is accepted the railroad officials of the Helena organization will proceed to electrify the entire branch, putting on a train every hour. Pres. Hornor, of the Helena Business Men's League, is interested.

LA PORTE, TEX.—The Bay Shore Rapid Transit Co. has commenced the preliminary surveys for an electric railway connecting La Porte and Houston. O. L. Allen and Charles M. Boren are interested.

BEAUMONT, TEX.—A franchise has been granted the Beaumont-Port Arthur Interurban Electric Ry. to build a line from Beaumont to Port Arthur. G. D. Polk is interested.

OKLAHOMA CITY, OKLA.—An electric interurban railway will be built to connect Oklahoma City and Fort Smith. Joseph Kries is Gen. Mgr.

Contemplated Improvements Near Boston.

By FREDERICK I. WINSLOW.

In spite of the prophecy, prevailing in many quarters, of a business depression, the year closes with good promises for a number of large engineering projects which will be begun in 1911 or soon thereafter. Improving the transportation systems will probably call for the greatest amount of work, as the facilities in and around Boston, especially as far as the transportation of passengers is concerned, are inadequate, and there is several years' work ahead in that direction. The reports so far issued regarding the electrification of the various steam roads in and around the city have been adverse, but the matter has not yet been finally settled. The River Bank subway, extending towards Brighton, will probably be commenced some time during the ensuing year, as it has been authorized by the Legislature. A subway connection between the Park St. Station, of the present subway, and the South Terminal will also be started in 1911. This may be extended at a later date through South Boston to Dorchester, the estimated cost being $7,000,000. With the completion of the Cambridge subway in the near future the Boston Elevated R. R. will start on its proposed elevated railway to Malden. Part of this will be over a private right-of-way. The Boston, Revere Beach & Lynn R. R. will undoubtedly be changed to standard gage and the road extended in a northerly direction. A tunnel connecting the present terminal in East Boston with the South Station is projected. There is also a proposition to build a freight tunnel, connecting the North Station and the South Station in Boston.

Important grade crossing elimination schemes are in prospect—that of the Boston & Maine in Lynn, the New Haven through Dorchester, and the Boston & Albany in conjunction with other railroads in Worcester. A trolley line from Boston to Providence across private right-of-way is probable. Work of securing the necessary land has already begun.

A large amount of building is expected in Chelsea, as only one-third of the area burned in the great fire of 1908 has been rebuilt. Probably $1,000,000 will be spent for building construction in that city. Several bridges connecting Boston with adjacent towns will be rebuilt.

The fire line system of Boston will be materially enlarged. About eight miles of old sewers will be reconstructed and numerous additions made. School-house construction alone, in the City of Boston, will involve approximately $1,000,000. Numerous towns in the vicinity of Boston are finding their water-supply suspicious in quality, or inadequate in supply, and are contemplating joining the Metropolitan Water District. A filtration system in Lynn is planned at an expenditure of $300,000.

TRINIDAD, COLO.—The construction of an interurban railway from Trinidad to coal mining camps in this section is under consideration. C. S. Weitzel is said to be interested in the project.

COTTAGE GROVE, ORE.—The line around the Knox hill, east of town will be constructed soon, according to press reports. The road will leave the present highway at the foot of the hill, run north 300 feet, thence east to the intersection of the county road at a point near the Knox barn, thus avoiding heavy grade.

SANTA ROSA, CAL.—Construction work has been started by the Santa Rosa & Clear Lake Scenic Electric R. R. on its line from Santa Rosa to Clear Lake.

LOS ANGELES, CAL.—A new corporation has been created by H. E. Huntington to build extensions and new lines for Los Angeles Ry., controlling all of the city street car lines. Directors of new company are: Howard Huntington, G. C. Ward, C. A. Henderson, J. E. Brown, W. E. Dunn, S. M. Haskins, Albert Crutcher.

STOCKTON, CAL.—It is reported that the Stockton St. Ry. Co. will construct an interurban line down one of the thoroughfares near North St. to West St.

*HAYWARDS, CAL.—I. B. Parsons has made application to the town trustees for a franchise to construct a 4-mile electric line over certain streets in Haywards.

SAN FRANCISCO, CAL.—Application has been made by the Owens River Valley Electric Ry. Co. for a franchise to construct an electric line in the Owens River Valley. The Directors are Curtis Hillyer, R. C. Pardoe, E. A. O'Brien, G. Carter, T. W. Forsyth, all of San Francisco. The company is capitalized at $200,000.

LOS ANGELES, CAL.—Construction work has been started by the Pacific Electric Ry. on its extension from Pomona to Claremont. J. McMillan is Gen. Mgr.

SAN RAFAEL, CAL.—A franchise has been granted George D. Shearer to install a trolley system in this city. The cost of installing the line will be about $300,000.

LOS ANGELES, CAL.—The City Ry. Co. of Los Angeles, has been incorporated here with a capital stock of $5,000,000, all subscribed. The directors are Howard E. Huntington, Geo. C. Ward, C. A. Henderson, J. E. Brown, W. E. Dunn, S. M. Haskins, Albert Crutcher.

TUCSON, ARIZ.—Arrangements are being made for the construction of street car line extension from present 3d St. terminus to a point on speedway about 2 miles from city E. R. Sanderson, a representative of the Tucson Rapid Transit Co., is interested.

NIAGARA FALLS, ONT.—The Niagara Falls, Welland & Dunnville Electric Ry. Co., which recently obtained a charter from the Dominion Parliament, is making preparations to build and are applying to township and village authorities for highway franchises required along the route. The road will be 37 miles in length and the estimated cost is $1,000,000. Between Niagara Falls and Welland the route will be largely over private right-of-way via Queen Victoria Park, Drummondville, Lundys Lane, Allenburg and Port Robinson; at the latter place the Welland River and Welland Canal will be bridged. From Welland the line will run south to Air Line Junction, and then west along the Forks Road to Dunnville. Later on the road is to be extended to Port Dover. A passenger, mail, express and freight service will be operated. The officers are: Pres., F. R. Lawlor, M. P., Dunnville; Secy., F. E. Misner, Welland; Treas., Geo. Burgar, Welland.

TORONTO, ONT.—The Board of Control has directed preparation of plans and conditions in order that the city may advertise for bids for the construction and operation of an underground railway line from the city hall, along Queen St. to Sunnyside (at the western limit of the city), together with such branch lines throughout the city as may seem practicable. C. H. Rust, Toronto, is City Engr.

LONDON, ONT.—The City Council of London, Ont., have agreed to submit to the ratepayers a by-law guaranteeing bonds of the North Midland Ry. Co. to the extent of $200,000 by the city corporation. The total issue is to be $900,000, and the road is planned to connect London with St. Marys, Stratford and Lucan. A. E. Welch, F. G. Rumball and T. H. Luscombe, London, are interested.

CALGARY, ALTA.—THE UNITED STATES STEEL PRODUCTS CO., has been awarded contracts for the supply of 1,045 tons of steel rails for the street railway system at $105,000.

NANAIMO, B. C.—The Nanaimo General Electric Ry. is considering the construction of an electric railway over certain streets.

MEXICO CITY, MEX.—A bill has been passed by the National Congress authorizing the Mexican Tramway Co. to construct two electric lines. One of the proposed lines will extend from Mexico City to Toluca, the other to Puebla. Preliminary surveys have been made.

LIGHT AND POWER PLANTS.

(*Denotes that this work is advertised in *Engineering News*.)

BANGOR, ME.—The Penobscot Realty Co. has purchased the site and nearly the entire holdings of James Walker Co. and will install an electric light plant.

ORONO, ME.—Arrangements are being made by the Penobscot Realty Co. for the erection of a hydro-electric plant. The estimated cost is about $300,000.

PORTSMOUTH, N. H.—Bids will be received at the Bureau of Yards and Docks, Navy Dept., Washington, D. C., until 11 a. m., Jan. 7, for furnishing and installing one electric motor-driven capstan. Further information may be obtained from R. C. Hollyday, Ch. of Bureau.

BOSTON, MASS.—Bids will be received until Dec. 15 by Walter Channing, Chn. Board of Trustees, 93 Federal St., for the installation of a heating and ventilating system and all electrical work for the Psycopathic Hospital, Kenwood St.

BOSTON, MASS.—The contract for the hydro-electric plant at the Clinton Dam has been awarded by Metropolitan Water and Sewage Board to S. MORGAN SMITH, New York, for hydro-electric plant at $71,500 also for turbines at $30,400.

PHILIPSDALE, R. I.—The contract has been awarded to the AMERICAN ELECTRICAL WORKS for various electrical supplies.

HARTFORD, CONN.—It is reported that the Connecticut River Co. has plans for the development of power and navigation on the Connecticut River at Windsor Locks. The construction of a large dam and the development of electric power on a large scale is contemplated.

ALBANY, N. Y.—Bids will be received by F. C. Stevens, Supt. of Public Works, Capital Bldg., Albany, for the erection of a hydro-electric power plant on Erie Canal, until Dec. 21. Walter Melius is City Engr.

BUFFALO, N. Y.—The contract has been awarded to the WESTINGHOUSE MACHINE CO., Pittsburg, Pa., for 3 steam turbine generators, for the new pumping stations at the foot of Porter Ave.

NEW YORK, N. Y.—According to press reports bids will be received by the Dept. of Public Charities, foot of East 26th St., New York, N. Y., for the furnishing and installation of electrical work until Dec. 27, for the completion of a nurses' home building for the Children's Hospital, located at the north end of Randall's Island, Boro. of Manhattan. Further information may be obtained at the office of Raymond F. Almirall, Arch., 185 Madison Ave., New York. Michael J. Drummond is Comr.

*NEW YORK, N. Y.—Bids will be received by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., Jan. 3, for the installation of a conduit and electric wiring system in the United States Assay Office, New York, N. Y. Plans and specifications may be seen at the office of the Supt. of Construction, New York, N. Y.

NEW YORK, N. Y.—Bids will be received by George McAneny, Pres. of the Boro. of Manhattan, City Hall, until 11 a. m., Dec. 17, for alterations to the present elevator shaft and construction of pent house in connection with the installation of new electric elevators in the County Court-House, City Hall Park, Boro. of Manhattan. Plans and specifications may be obtained at the office of the Comr. of Public Wks., 13 to 21 Park Row, New York.

JERSEY CITY, N. J.—It is reported that plans and specifications have been filed by L. O. Koven & Bros., for the erection of a power plant on King St. in the Hudson City section. The estimated cost is about $12,000.

CLYMER, PA.—Construction work has been started by the Clymer Heat & Power Co. on its power plant at Barslope. The plant will supply electric service in Lovejoy, Clymer, Marion Center, and Dixonville.

RENOVO, PA.—The Renovo Edison Light & Power Co. is making extensions of its transmission lines to Farwell to furnish electrical service in this place.

BELLEWOOD, PA.—The Blair Electric Co., Tyrone, has purchased the Bellewood Electric Light Co. A. A. Steavens, Tyrone, is interested.

HAZLETON, PA.—See item under Buildings.

SCHUYKILL HAVEN, PA.—See item under Buildings.

PHILADELPHIA, PA.—Only one bid for the lighting of the streets with electric lighting was opened by Director of Public Safety Clay, Dec. 5, the Philadelphia Electric Co. submitting a bid. This is approximately $75,000 less than bid from the current year's lighting of $1,213,716. The bid was as follows: For each light furnished from lamps erected on poles supplied by overhead wires, owned and controlled by the company, 37½ cts. per light each night; for each light erected or which may be erected on ornamental poles, 27 cts. per light each night; for each light furnished from lamps erected on ornamental poles, furnished by the company and attached to the city's underground cables, 27 cts. per light each night. The bid, figured on the basis of the number of lights bid upon by the company for the current year, will average $5 less per year on each lamp.

BALTIMORE, MD.—Estimates are being taken for the electric work in connection with the city's new $400,000 sewerage pumping station on East Falls Ave., under construction by the Noel Construction Co., United States Fidelity & Guaranty Bldg. Calvin E. Hendrick is the sewerage engineer, and Henry Brauns, Professional Bldg., is the architect.

BALTIMORE, MD.—The Consolidated Gas, Electric Light & Power Co. will construct a big addition to its substation in McClellans alley.

BALTIMORE, MD.—It is reported that the Consolidated Gas, Electric Light and Power Company, will build an addition to its substation in McClellans alley, near Baltimore St. William Schmidt Jr. is Secy.

FORT MONROE, VA.—Bids will be received by Curtis C. Rosebeck, Capt. coast artillery Corps. Office of the quartermaster until Dec. 10, for furnishing 520 electric fixtures, 300 ft. cable, 200 pounds assorted nails, 40 pounds assorted tape and 3,000 ft. rubber-covered wire.

NORFOLK, VA.—Bids received on Dec. 3, by the Bureau of Yards and Docks, Navy Dept., for Coal and Ash Handling installation for Central Power Plant, Navy Yard, Norfolk, Va., were as follows: R. H. Beaumont, 644 Drexel Bldg., Philadelphia, Pa., Item 1, $35,437, $26,537, Parsons ash system $5,850, Darley ash system $8,900; Robins Conveying Belt Co., 13 Park Row, New York, N. Y., Item 1, $28,670; Baltimore Bridge Co., Evans Bldg., Washington, D. C., Item 2, $26,770, Item 3. $24,970; Guarantee Construction Company, 140 Cedar Street, New York, N. Y., Item 1, $32,000, Item 2, $31,200.

SOUTH FORK, VA.—The Stineman Coal Co. has awarded a contract to W. J. ROSE & SONS, Johnstown, for the erection of a large brick and steel power house at No. 1 mine.

CHARLOTTE, N. C.—The Southern Power Co. contemplates constructing a 4,000-HP. plant at Great Falls, S. C., to extract nitrates from air.

LIVE OAK, FLA.—The Union Investment Co., contemplating improvements and extensions to the electric light system in this place.

WETUMPKA, ALA.—See item under Water Supply-Irrigation.

BROOKHAVEN, MISS.—The contract has been awarded to the HARRISBURG ENGINE WORKS for the installation of one compound condensing high speed 200 r. p. m. Corliss Valve type engine for direct connection to 200 K. V. A. alternator.

NEW ORLEANS, LA.—A company has been formed by the business men for the purchase of the plant of the Consumers Electric Co. The directors of the new company are Chas. E. Fenner, W. B. Spencer, B. J. Mayer, M. S. Hart and E. Phelps. The new company will be capitalized at $1,500,000.

DUCKTOWN, TENN.—The WESTINGHOUSE ELECTRIC & MANUFACTURING CO. has been awarded the contract for electric equipment for the power plant on Ocall River. The machinery is estimated at about $250,000.

LOUISVILLE, KY.—Bids will be received by Roger G. McGrath, Secy. of the Board of Public Works, Louisville, Ky., until Dec. 9, for the installation of a new magnetic electric elevator in the city hall. Plans and specifications at the Board of Public Wks.

CUYAHOGA, OHIO.—A bond issue of $3,000,000 will soon be made by the Northern Ohio Traction & Light Co. for various improvements. A power house will be constructed with a capacity of 25,000 HP., and will furnish power for the entire system north of Canton. It will also supply the lights of Akron and Barberton and power for mills and manufacturing plants along the line.

CANTON, OHIO.—See item under Water Supply—Irrigation.

JACKSON, OHIO.—Bids will be received by W. A. Dallas, Clerk of Board of Public Affairs for machinery for municipal electric light plant, until Dec. 19.

KENTON, OHIO.—The Hardin-Wyandot Lighting Co. was incorporated with a capital of $10,000 to acquire a lighting and artificial gas plant and to furnish natural gas. The incorporators are W. B. Whiting, C. C. Owens, Sterling Newell, Ellis B. Diehm and Donald McBride.

SEBRING, OHIO.—The McKee Light and Power Co. Sebring, Ohio, has been incorporated. Capitalized at $10,000, to erect a power plant. The incorporators are S. E. McKee, Mrs. S. E. McKee, F. W. McKee, Mrs. Hanna W. McKee and Willam S. Hanna.

DENNISON, OHIO.—Construction work will soon commence on the power plant to be built by the Northern Ohio Traction Co. The plant will have a capacity of 2,500 HP., and will furnish electrical service for the entire system north of Canton. The estimated cost is about $1,250,000.

COLFAX, IND.—The Town Council has been taking steps toward the installation of a municipal electric light plant.

SANDUSKY, MICH.—See item under Water Supply-Irrigation.

CHICAGO, ILL.—See item under Water Supply—Irrigation.

IPAVA, ILL.—The village Board is contemplating the purchase of the electric light plant owned by F. R. Dennis, Peoria, Ill.

KEITHBURG, ILL.—Bids will be received by the Commissioners of the Keithburg Drainage District until 1 p.m., Dec. 9, for the construction of a complete pumping plant, consisting of two centrifugal pumps, two constant speed induction motors, switchboard, station and wiring.

SPRINGFIELD, ILL.—The Miller Electric Co., has been chartered by Frank R. Belknap, John J. Offield and Charles J. Schmidt to manufacture electrical devices and machinery. The company is capitalized at $10,000.

PEORIA, ILL.—The citizens of this place contemplate purchasing the Cereal Sugar plant to use as a combination light plant and pumping station for the water-works system about to be installed. The cost is said to be about $6,000.

SUPERIOR, WIS.—The Great Northern Power Co. will install an electric power transmission line from Thompson direct to Superior along the Wisconsin side of the St. Louis River, also a power distributing station with the necessary power lines and auxiliary apparatus. The estimated cost is $250,000.

VALDERS, WIS.—It is reported that the Oslo Lighting & Power Co., is contemplating the installation of a power plant, and will soon be in the market for equipment.

NEWTOWN, IOWA.—A bond issue to the amount of $10,000 was voted upon for the erection of a municipal gas plant.

FOREST CITY, IOWA.—Frank Kellogg is reported to have purchased the plant of the Forest City Electric Light & Power Co. M. Barton will have charge of the plant.

SIOUX CITY, IOWA.—The construction of a modern electric power plant for furnishing light and power for city buildings is under consideration. Plans and specifications will be prepared by F. W. Cappelen, Consult. Engr., Minneapolis, Minn.

DULUTH, MINN.—See item under Water Supply—Irrigation.

FERGUS FALLS, MINN.—[illegible] auxiliary steam power plant is being installed at a cost of $25,000.

MINEOTA, MINN.—A franchise has been granted by the City Council for the erection of an electric light plant.

LOWRY, MINN.—It is reported that the Misenol & Leslie are interested in the installation of an electric light plant.

ELLENDALE, N. DAK.—V[illegible] Haskins, County Audr., will receive bids until 10 a. m., Dec. 16, for heating and ventilating, gas fitting, conduit electric and telephone wiring for the court house. Buechner & Orth, St. Paul, Archs.

BROOKINGS, S. DAK.—It is reported that bids will be received by the Board of County Commissioners, Brookings County until Dec. 28, for the construction of a court house including electrical work and heating.

EUREKA, S. DAK.—A franchise has been granted to G. A. McLaughlin, Aberdeen, S. Dak., for the construction of an electric light plant.

LETCHER, S. DAK.—It is reported that town officials are contemplating the construction of an electric light plant.

CULBERTON, MONT.—W. E. Pierce has made application to the Council for a franchise to install an electric light plant.

PORTLAND, ARK.—See item under Water Supply-Irrigation.

FAIRFAX, OKLA.—See item under Water Supply-Irrigation.

BOULDER, COLO.—Application has been made by the Boulder Electric Light & Power Co. for a franchise to construct additional trackage and make immediate improvements to its system. The estimated cost is $10,000.

LAFAYETTE, COLO.—An extension is being made by the Northern Colorado Power Co. on its feeder lines from the Lafayette power-house, via Brighton, Evans, Fort Lupton to Greeley.

FORT LUPTON, COLO.—The Northern Colorado Power Co., has been granted a franchise by the Town Council to supply electrical service in this place.

CLARKSTON, WASH.—The Lewiston-Clarkston Improvement Co., has awarded contracts for the construction of a concrete power house and equipment. The GENERAL ELECTRIC CO., Schenectady, N. Y., will supply the equipment, and CHAS. C. MOORE & CO. will construct the building.

STANWOOD, WASH.—A franchise has been granted by Snokomish County Comrs. Contract has been awarded to L. F. QUERY for the erection of an electric light system.

TACOMA, WASH.—Press reports are to the effect that bids will be received in about two weeks for the completion of the city's Nisqually power plant. The estimated cost is about $1,000,500. Officials of the company are Savage and Nicojols, J. E. Bonnell and Connell Bros.

EVERETT, WASH.—The Snohomish County Commissioners have granted the town of Sultan a franchise to install water pipes and erect poles and wires during a period of 50 years.

HERMISTON, ORE.—An ordinance has been passed granting a franchise to B. A. Chisholm and G. A. Chisholm for the construction of an electric lighting and power system and the erection of poles and wires along certain streets.

LOS ANGELES, CAL.—A subsidiary corporation of the Pacific Light & Power Co. has been formed under the name of the Southern California Gas Co. The company will install high pressure gas mains throughout Southern California. The directors are: A. C. Johnson, Charles Forman, A. N. Kemp, E. R. Davis and F. Baumgartner.

TIBURON, CAL.—Bids opened by the Bureau of Yards and Docks, Navy Dept., on Dec. 3, for electrical wiring, and power-plant extension were as follows: D'Olier Engineering Co., Broad & Chestnut St., Philadelphia, Pa., Item 1, $26,970, $1,300; The Snare & Triest Co., 143 Liberty St., New York, N. Y., Item 1, $23,900; Heine Safety Boiler Co., St. Louis, Mo., Item 2, $28,447; Chas. C. Moore & Co., 99 First St., San Francisco, Cal., Item 1, $26,930, $26,700, $26,910; 2, $270 (deduct); Robert Dalzier, Jr., 218 First St., San Francisco, Cal., Item 1, $22,200 (add $515 conditionally); Frederick C. Roberts & Co., 461 Market St., San Francisco, Cal., Item 1, $27,992; 2, $22,002; 3, $5,900 (deduct $600 conditionally).

RICHMOND, CAL.—A modern electric-lighting system, with all modern improvements, is planned for this city. Manager H. B. Kinney, of the Richmond Light & Power Co., announces that he has received instructions from headquarters for the complete reconstruction of the plant.

SALT LAKE CITY, UTAH.—Construction work has commenced on the hydroelectric plant to be built by the Davis & Weber Counties Canal Co. The new plant will have a capacity of 15,000 HP. The estimated cost is $500,000. E. P. Ellison, Layton, is Pres.

PAYETTE, IDAHO.—Articles of incorporation have been filed by the Salmon Falls Light & Power Co. The principal place of business is Payette. The company will furnish light and power for flour mills and various industries. The company is capitalized at $100,000.

MURRAY BAY, QUE.—See item under Manufacturing Plants.

NORTH TORONTO, ONT.—The construction of an electrical plant for lighting the streets and residences is under consideration.

MARMORA, ONT.—The ratepayers have voted to purchase the village lighting plant.

VERNON, B. C.—Bids will be received until Dec. 19, by R. C. Desrochers, Secy., Public Wks. Dept., Ottawa, Ont., for electric light fixtures, wiring, etc., for public building at Vernon. Plans are at the office of F. B. Coffett, Clk. of Works, Vernon, or Public Wks. Dept. Ottawa.

VICTORIA, B. C.—The Municipal Council of Victoria has decided to light Yates St., from Governeur St. to Douglas St., by means of electric lights.

MEXICO CITY, MEX.—A company has been organized by English and German bankers to construct a large power plant on the River Balso, near Torreon, to generate electricity to light the city and for mine use. The estimated cost is about $1,400,000.

BRIDGES.

(*Denotes that this work is advertised in *Engineering News*.)

HUNTINGTON, MASS.—The Boston & Albany R. R. Co. will construct steel girder bridges to replace structures 125 and 126 as soon as the concrete piers and abutments are remodeled. W. Shepherd is Consult. Engr. of Bridges, Boston.

FITCHBURG, MASS.—The County Commissioners have decided to construct the Fifth St. bridge. Estimated cost, about $100,000.

BOSTON, MASS.—The New York Central & Hudson River R. R. Co. contemplates double tracking and widening the present bridge at Cottage Farm. F. B. Freeman is Ch. Engr.

Bids will be received by Louis K. Rourke, Supt. of Sts., until Dec. 12, for repairing the Neponset Bridge.

WEYMOUTH, MASS.—The towns of Weymouth and Hingham have petitioned the legislature for the right to build a new bridge across Weymouth Back River, where the state road to Nantasket crosses Norfolk. John F. Merrill, Quincy, Mass., is Chn. County Comrs.

BRIDGEPORT, CONN.—The city is considering the replacement of the East Washington Ave. drawbridge with a modern bridge. Estimated cost, $75,000. M. F. McKenna is City Engr.

HARTFORD, CONN.—The City Plan Commission has decided to construct a bridge connecting Riverside St. with Pope Park. Frederick L. Ford is City Engr.

NIAGARA FALLS, N. Y.—The contract will soon be let for constructing a bridge over the New York Central R. R. tracks at Eleventh St. W. D. Robbins is City Engr.

ROME, N. Y.—Bids are asked by F. C. Stevens, Supt. Pub. Wks., Albany, until noon, Dec. 21, for constructing a highway bridge over the Erie Canal at South Washington St., Rome, Oneida County. The work will cost about $16,000.

HARRISBURG, PA.—We are officially advised that plans for the construction of the 13th St. bridge are being completed as rapidly as possible by M. B. Cowden, City Engr. Noted on Dec. 1.

ALLENTOWN, PA.—The County Commissioners on Nov. 28 awarded contract to the R. T. and C. D. STEWART CONTRACTING CO., Easton, Pa., for widening the Hamilton St. bridge, at $19,750. Bids erroneously noted on Dec. 1 as having been rejected. List of bidders noted on Nov. 24.

SCRANTON, PA.—M. Ward Easby, Crozer Bldg., Philadelphia, Pa., is preparing plans and specifications for the construction of a bridge that will be built jointly by this city and the American Railways Co., Witherspoon Bldg., Philadelphia. The bridge will be a 3-span steel structure on concrete piers and abutments, and will be built in the early spring. Bids will be asked for this winter, and the contract awarded so that work can be started just as soon as weather conditions will permit. Estimated cost, $200,000.

TOWSON, MD.—Bids will be received until noon, Dec. 8, by the County Highway Commision, Towson, for rebuilding the bridge over the Black River, at Eastern Ave. Henry G. Shirley is County Roads Engr., Towson.

*RICHMOND, VA.—Bids will be received by Charles E. Bolling, City Engr., until 4 p. m., Feb. 1, for plans, designs, detailed drawings, strain sheets, specifications and proposals for the erection and construction of a reinforced concrete bridge over the James River, not to exceed in cost $225,000 each design and proposal for the construction of the bridge to be accompanied by a certified check for $5,000, payable to the City Treasurer as a guaranty of execution of contract.

ROWLESBURG, W. VA.—The Baltimore & Ohio R. R. Co. will shortly replace the two single-track bridges at Rowlesburg with a single span double-track structure.

FAIRMONT, W. VA.—The Baltimore & Ohio R. R. Co., A. W. Thompson, Ch. Engr., Baltimore & Ohio Bldg., Baltimore, Md., will construct a doublt-track bridge over the Monongahela River.

ATLANTA, GA.—The city is considering the construction of a viaduct over the Southern Ry. crossing at South Pryor St.; R. M. Clayton is City Engr.

CULLMAN, ALA.—The Cullman Coal & Coke Co., Cullman, has awarded the contract to the VIRGINIA BRIDGE & IRON CO., Roanoke, Va., for the construction of four deck girder bridges, consisting of seven 80-ft. spans, one 60-ft. span and two 90-ft. spans; two half-through bridges of 80-ft. spans and one 60-ft. half-through. Steel required, 578 tons.

BAY MINETTE, ALA.—See item under Miscellaneous Contracts: "Lumber."

GREENWOOD, MISS.—The County Board will ask for bids for the construction of bridges at Shellmound across the Yazoo River and across Bear Creek near Swift. Estimated cost, $20,000 and $9,000, respectively.

SHREVEPORT, LA.—Bids will be received by the Police Jury, Shreveport, A. L. Duringer, Clk., until Dec. 8 for either a steel or wooden bent bridge in Ward, across Horseshoe Bayou, one-half mile north of Belcher, approximately 100 ft. long; also bids for either steel or wood for following bent bridges in Ward: Bridge at Sellington's Place, 20 ft. long; bridge across Dooley Bayou, 40 ft.; bridge north of Cavett's store, 20 ft.; bridge below Cavett's store, 20 ft.; and bridge at Swan's Place 20 ft.

HARLAN, KY.—Bids were received Nov. 16 by the county for constructing a steel bridge over Clover Fork, 300 ft. long and 20 ft. wide, with a 16-ft. roadway, and 4-ft. walk. The contract has been awarded to F. F. CAWOOD, Harlan, at $13,750. J. S. Forester is County Judge.

MIAMI, OHIO.—The contract has been awarded to the CHAMPION BRIDGE CO., Wilmington, Ohio, for constructing two iron bridges over Snake Creek and Little River to replace old wooden structures.

LAPORTE, IND.—The Board of County Commissioners is considering the construction of steel and concrete bridges. Clyde Martin is County Engr.

SAGINAW, MICH.—The contract has been awarded by the Board of Supervisors to the JOLIET BRIDGE & IRON CO., Joliet, Ill., for the construction of a new bridge in Brant Township.

ESCANABA, MICH.—The city has voted $40,000 of bonds for the construction of a new steel and concrete bridge across the Escanaba River.

PEORIA, ILL.—The city will soon advertise for bids for the construction of a bridge over the Illinois River. Fred. B. Tracy is City Clk.

*EAST ST. LOUIS, ILL.—Bids are asked until noon, Jan. 9, by the Board of Trustees East Side Levee and Sanitary District, Sexton Bldg., for the construction of four steel highway bridges over the channel now being dug to divert the waters of Cahokia Creek into the Mississippi River. Each of the bridges will be 270 ft. long. The main span of each will be 150 ft. long and there will be two other spans of 60 ft., making three spans to each bridge. Estimated cost, $45,000. Five railroad bridges will be constructed over the channel when the highway bridges are completed. Henry D. Sexton is Pres. Bd. For details see advertisement in this issue.

CHICAGO, ILL.—We are officially advised that the construction of bascule bridges, concrete masonry foundation, is contemplated at Washington St., Indiana St., 35th St., Chicago Ave., 92d St., Belmont Ave., Lake St., Blackhawk St., and other streets. The work is contingent upon a bond issue to be voted on in the spring. Noted on Dec. 1. John Ericson is City Engr.

SUPERIOR, WIS.—An election will be held here on Dec. 8 to vote on the question of issuing $90,000 of bridge bonds.

GREEN BAY, WIS.—W. L. Kerr, City Engr., will prepare plans for the construction of a 4 or 5-span bascule bridge over the Fox River. Estimated cost, $150,000.

BARABOO, WIS.—The County Board is considering an appropriation of $10,000 for the completion of the bridge across the Wisconsin River at Springgreen.

CARROLL, IOWA.—Bids will be received until Dec. 21 by Peter Stephany, County Audr., Carroll, for constructing the substructures and superstructures of all bridges that may be needed during the year 1911.

RIVERTON, NEB.—The Board of County Commissioners will soon award contract for constructing a steel bridge across the Republican River, near here. Estimated cost, $8,000.

KALISPELL, MONT.—The citizens of Flathead County have voted to construct five steel bridges over various streams in the county.

COLUMBIA, MO.—The Commissioners of Boone County have awarded the contract for the construction of steel bridges, the spans ranging from 20 ft. to 80 ft., to the MISSOURI BRIDGE & IRON CO., St. Louis, at about $21,000.

ST. LOUIS, MO.—The St. Louis, Brownsville & Mexico Ry. Co. is considering repairing or rebuilding the bridge over the Colorado River. E. C. Burgess is Engr. M. W. and Construction, Kingsville, Tex.

ST. LOUIS, MO.—Bids will be received by the Terminal R. R. Association of St. Louis and the St. Louis Merchants' Bridge Terminal R. R. Co., until Dec. 12, for the construction of the Compton Ave. viaduct. Estimated cost, $375,000. Noted on Oct. 20 and Nov. 24.

DALLAS, TEX.—Dallas County will receive bids until Dec. 21 for the construction of three swing bridges of 212-ft. span each. George L. Fearn is County Audr.

WACO, TEX.—The contract for the construction of new bridges at Eighth St. over Waco Creek and at Fourth St. over the same stream has been awarded to AUSTIN BROS., Dallas, Tex., at $12,195.

CUERO, TEX.—The contract has been awarded to C. H. HORTON, Austin, Tex., for rebuilding the Clear Creek bridge, at about $12,095. Eight bids were submitted for this work.

MUSKOGEE, OKLA.—Bids will be received by the County Commissioners until Dec. 29 for the construction of 33 bridges in various parts of the county.

OKLAHOMA CITY, OKLA.—The Oklahoma City & Fort Smith Traction Co., Joseph Kreis, Ch. Engr., Oklahoma City, will construct a 300-ft. bridge across the South Canadian River. Several smaller structures will also be built.

CHANDLER, OKLA.—Bids are asked until 9 a. m., Dec. 16, by C. A. Wightman, Engr. and Surv. for Deep Fork Drainage District No. 1, Lincoln County, at the office of J. E. Rea, County Clk., Chandler, for the construction of about 48 steel bridges. Estimated cost, $81,930.

DENVER, COLO.—The Park Board has ordered all wooden bridges crossing the City Ditch in Washington Park to be replaced with reinforced-concrete structures.

SEATTLE, WASH.—The citizens have voted to issue $40,000 of bonds for the construction of a steel bridge on 16th Ave., N. E., between Cowen and Ravenna Parks. R. H. Thomson is City Engr.

SEATTLE, WASH.—The contract has been awarded by the city to the INTERNATIONAL CONTRACT CO., Seattle, for the construction of the drawbridge across the West Waterway at Spokane St. Noted on Dec. 1.

SEATTLE, WASH.—The contract has been awarded to the VULCAN IRON WORKS, Seattle, for the construction of a steel and iron bridge over the Duwamish River. The span will be 284 ft. long and the contract, including the turntable for the drawbridge, amounts to $45,000. Lance & Peters, contractors on the Ocbow Bridge, awarded the contract.

SPOKANE, WASH.—The contract has been awarded to the MISSOURI BRIDGE & IRON CO., St. Louis, Mo., for the construction of the bridge over Hangman Creek, and the Spokane River.

PORTLAND, ORE.—Bids are asked until Dec. 30 by the city for the construction of the substructure of the Broadway Bridge. The plans provide for seven main piers and 15 small piers. Ralph Modjeska is Consulting Engr., Monadnock Block, Chicago, Ill.

MODESTO, CAL.—Bids will be received until 10.30 a. m., Dec. 13, by the County Supervisors for the construction of several bridges. F. H. Annear is County Surv.

STOCKTON, CAL.—The San Joaquin Valley Electric Ry. Co. has awarded to MORIARITY & PERKINS, 503 Market St., San Francisco, Cal., the contract for the construction of a reinforced concrete bridge at $27,000.

OAKDALE, CAL.—The Northern Electric road has plans for a new steel bridge to replace the present wooden structure over the Little Chico Creek at Oakdale.

VISALIA, CAL.—The city has awarded the contract to OSCAR PARLIER, Tulare, Cal., for constructing a reinforced-concrete bridge 70 ft. long across Mill Creek.

ASOTIN, IDAHO.—The Lewiston Concord Bridge Co., Asotin, has been incorporated with a capital stock of $100,000. The incorporators are: Edgar L. Libby, George W. Bailey and Charles F. McDonald, Lewiston, Idaho.

VANCOUVER, B. C.—The Council has approved the construction of a viaduct connecting Georgia and Harris Sts.—the east end of the city with the west end—and also a bridge to continue Dunsmuir St. so as to intersect the Georgia-Harris St. structure. The City Engineer has been instructed to have plans prepared and estimates made in connection with this bridge and the proposed bridge from Burard St. to Kitsilano over False Creek.

BUILDINGS.

(*Denotes that this work is advertised in *Engineering News*.)

FALL RIVER, MASS.—Corbett & Higgins, 70 Bedford St., are completing plans for the Technical High School, which will be ready for estimates soon. The building will cost about $175,000.

WOONSOCKET, R. I.—The Bresnahan Grocery Co., of which P. J. Bresnahan is Pres., plans the construction of a storehouse and bakery, on property recently purchased, near the New York, New Haven & Hartford R. R. freight house. It has a frontage of 201 ft. on East School St. and 234 ft. on Pond St.

BRIDGEPORT, CONN.—Arrangements are being made by St. Patrick's Roman Catholic Corporation to erect a parochial school. The plans will be prepared by Dwyer & McMahon, Archs., of Hartford, and the structure will cost about $50,000. Rev. J. B. Nihill is Pastor.

SHELTON, CONN.—Architects Cooper & Bailey, 80 Franklin St., Boston; McLean & Wright, 110 Tremont St., Boston; C. T. Beardsley, Jr., Bridgeport, and W. P. Crabtree, New Britain, have been invited to submit competitive plans for two new schools to be erected by the Borough. There is an appropriation of $50,000 for the work.

NEW YORK, N. Y.—See item under Miscellaneous Contracts: "Recreation Pier Work."

A 6-story brick tenement, 98 × 86.10 ft., is to be erected at the southwest corner of 151st St. and Convent Ave. The Tomahawk Realty Co., Convent Ave. and 149th St., is the owner. Gross & Kleinberger, Bible House, are Archs. Estimated cost, $150,000.

The Hanover National Bank, of which James T. Woodward is Pres., is having plans prepared by John A. Hamilton, Arch., 32 Broadway, for an addition, two stories high, to the bank building at the southwest corner of Nassau and Pine Sts. Estimates will be taken by the Architect on the general contract about Dec. 25.

The contract for strengthening steel in viaduct work to the north and south of the U. S. post-office, to carry post-office area walls, has been awarded to the PENNSYLVANIA TUNNEL & TERMINAL R. R. CO., George Gibbs, Ch. Engr., at $19,618.

Hugo V. Koehler, Arch., 489 Fifth Ave., has been commissioned to prepare plans for the loft building which the 663-665 Broadway Co. is about to erect on the site of the old Raleigh Hotel, occupying a plot measuring 50 × 200 ft., and extending through to 220-222 Mercer St. The construction will be of the highest type, strictly fireproof. The estimated cost of the project will approximate $325,000. The architect will take all the bids and have entire charge of erection. Harry Fischel is Pres. of the corporation owning the building, which has offices in the World Bldg.

BRIDGEPORT, CONN.—Plans are being prepared by Albert E. Westover, Arch., Keith Bldg., Philadelphia, Pa., for the construction of a theater in Bridgeport. B. F. Keith is the owner. Estimated cost, $250,000.

NEW BRITAIN, CONN.—Plans have been completed and bids will soon be received for the erection of a building for the Independent Order of Odd Fellows, on property which lies between Arch and Prospect Sts. The officers are: William Schaefer, Pres.; W. W. Bullen, Vice-Pres.; L. W. Lawyer, Secy.; E. Myron Jones, Treas. The estimated cost of the structure is $50,000.

NEW HAVEN, CONN.—The New York, New Haven & Hartford R. R. Co. plans to erect a new depot here, it is reported. H. L. Ripley, this city, is Engr. of Construction. Estimated cost, $1,500,000.

NEW YORK, N. Y.—We are officially advised that the contract to erect a 4-story fireproof dormitory at the Metropolitan Hospital, Blackwell's Island, was awarded on Nov. 30 to the RICHARD CARVEL CO., 403 West 59th St. It will be of stone, brick and terra cotta, and 173 × 50 ft. Estimated cost, $95,000.

NEW YORK, N. Y.—Plans have been filed for the erection of a 6-story brick tenement, 84.6 × 90 ft., at the northwest corner of Edgecombe Ave. and 189th St. A. J. Schwarzler, 1340 Brook Ave., is the owner, and Schaefer & Jaeger, 401 Tremont Ave., the Archs. Cost, $106,000.

Plans have been completed by the Consolidated Gas Co. for the erection of an office building for the exclusive occupancy of the company. The proposed structure, which has been designed by H. J. Hardenbergh, 47 West 34th St., will be erected on the rear of the company's offices, at the southeast corner of Irving Pl. and 15th St. The structure will be twelve stories in height, and will cover a plot 50 × 80 ft., on the south side of 15th St., 92 ft. east of Irving Pl. The general contract has been given to the GEORGE A. FULLER CO., 111 Broadway, for the erection of the structure, which is expected to be completed in six months.

NEW YORK, N. Y.—A plot, 100.11 × 125 ft., at the northwest corner of Broadway and 114th St., has been purchased by the Fourth Ave. Presbyterian Church, for the purpose of erecting a church. The Rev. Dr. Walter D. Buchanan is Pastor.

Applications have been filed with the State Board of Charities for the construction of the proposed Caledonian Hospital, at 53 Woodruff Ave., and a dispensary in Williamsburg section, at 84 Cook St. D. G. C. Sinclair and Dr. Peter Scott are said to be interested.

Bids for alterations in main building, construction, including plumbing and electric work, at the Long Island State Hospital, Brooklyn, will be received by the State Commission in Lunacy, Capitol, Albany, until 3 p. m., Dec. 14. T. E. McGarr is Secy.

NEW YORK, N. Y.—Bids will be received by C. B. J. Snyder, Supt. Bldgs., Bd. of Education, until 3 p. m., Dec. 19, for additions, repairs and alterations to sanitary work in Public Schools Nos. 20, 30 and 46, Boro. of Manhattan.

Also for alterations, etc., to offices of sanitary, heating, electrical and repair divisions of the Building Bureau, on the seventh floor of the hall of the Board of Education, Park Ave. and 59th St., Boro. of Manhattan.

SYRACUSE, N. Y.—Albert E. Westover, Arch., Keith Bldg., Philadelphia, Pa., is preparing plans for a theater in Syracuse, for B. F. Keith. The cost is estimated at $350,000.

POUGHKEEPSIE, N. Y.—James M. Taylor, Pres. of Vassar College, recently announced that Mrs. Russell Sage had presented $150,000 to Vassar for the construction of a new residence hall or dormitory. It will be called "The Olivia Jasselyn Hall."

BUFFALO, N. Y.—Lautz Bros., soap manufacturers, have had plans completed for a 5-story and basement brick warehouse, fireproof, to be erected at 31 and 33 Lloyd St.

The City has purchased a tract of 70 acres south of the city, at South Park Ave., Bay View Road and State Road, overlooking Lake Erie, as a site for a Truant School for Boys, plans for which are soon to be completed.

DUNKIRK, N. Y.—Plans for a joint city hall and fire department building have been submitted to the Common Council by H. P. Beebe, Arch., of Fredonia. The building will be 140 ft. long and 92 ft. wide, to occupy the site of the present City Hall fronting Central Ave. Estimated cost, $80,000. A public meeting of taxpayers is to be held to decide matter.

ROCHESTER, N. Y.—The J. C. Barnard Co., 9 North Water St., has let the general contract to the W. HOPEMAN & SONS CO. for the construction of a 6-story and basement business building, 50 × 88 ft., on North Water St., from plans of J. Foster Warner, Arch., Granite Bldg.

CAMDEN, N. J.—Bids are asked until Dec. 12 for the erection of the Municipal Hospital on Ferry Ave. by Joshua C. Jefferis, Arch., 1001 Chestnut St., Philadelphia. There will be four buildings, all of brick and stone. Raymond L. Warren, 522 Market St., this city, is Chn. of the Bd. of Health. The proposed buildings are estimated to cost about $50,000, and work will be under way as soon as the contracts are awarded.

TRENTON, N. J.—The contract for the alterations and an addition to the store and office building at Broad and State Sts., for Benjamin P. Lissner, has been awarded to EDWARD REEGER, 1406 South Broad St., Trenton. The building will cost $45,000, exclusive of furnishings and equipment, and will be three stories, 75 × 100 ft., of brick and stone. Kleeman & Fowler, First National Bank Bldg., Trenton, are the Archs.

NUTLEY, N. J.—We are officially advised that the following contracts have been awarded for the construction of a school in Nutley for the Board of Education. General contract to the AMERICAN CONCRETE-STEEL CO., 718 Union Block, Newark; heating and ventilating, to the AMERICAN HEATING & VENTILATING CO. It will be a 2-story structure, of reinforced concrete, 75 × 100 ft. H. King Conklin, 45 Clinton St., Newark, is the Arch. The estimated cost of the building is $50,000, and equipment, $2,000.

CAMDEN, N. J.—The State Military Board, Trenton, at a recent meeting, approved the site which the Camden County Board of Freeholders had voted to purchase for the erection of a new State armory for Battery B, Field Artillery, of Camden. It is located on Newton Ave., near Federal St. Plans will be prepared at once.

JERSEY CITY, N. J.—Bids will be received by the Board of Education of Jersey City until 9 p. m., Dec. 8, in the Assembly Chamber, City Hall, Jersey City, for all labor and material required for the erection of a technical and industrial high school adjoining the present High School building, Newark and Palisade Ave. John T. Rowland, Jr., 15 Exchange Pl., is the Arch., and G. Fred Ege, Secy.

BLOOMSBURG, PA.—The contract for the construction of the passenger station and the freight station here, for the Philadelphia & Reading R. R. Co., has been awarded to the BEARD CONSTRUCTION CO., of Reading. The buildings will be of brick, stone and steel, fireproof construction. The passenger station will be 52 × 30 ft., and the freight station, 50 × 30 ft. Each building will be one story in height.

HAZELTON, PA.—A. W. Leh, 203 West Fourth St., South Bethlehem, has completed plans for a hotel to be built on Broad St., this city, for James Loughran. The building will be of brick and terra cotta, four stories in height, 30 × 160 ft. Two passenger elevators will be required, and a power plant will be installed. The owner will receive bids during the latter part of January or early in February.

HAZELTON, PA.—Bids are asked until Dec. 16 by Ballinger & Perrott, Archs., and Engrs., 1211 Arch St., Philadelphia, for the construction of the proposed high school here, for St. Gabriel's Roman Catholic Church. The owners, care of Rev. Father J. S. Fagan, 122 South Wyoming St., this city, are also taking bids until the same date. The building will be of structural steel and brick, three stories high, 158 × 62 ft. It will have an auditorium on the first floor seating 900, a power plant in the basement, a steam heating system and elevator.

KNOXVILLE, PA.—The contract to erect the Knoxville branch building of the Y. M. C. A., at Zara and Virginia Sts., Knoxville, has been let to the LEY CONSTRUCTION CO., Park Bldg., Pittsburg. The building will cost $75,000.

LANCASTER, PA.—The contract to erect an addition to the Woolworth Bldg. here has been awarded to HERMAN WHOLSEN, Woolworth Bldg., this city. The masonry contract has been awarded to JOHN HARLAN, of Lancaster, and the contract for the structural steel frame has been awarded to the AMERICAN BRIDGE CO., 30 Church St., New York. The building will be built for F. W. Woolworth & Co., New York, and will cost $135,000. It will be seven stories high, 92 × 72 ft., of brick, steel and concrete. E. Emlen Urban, Woolworth Bldg., Lancaster, is the Arch.

C. Emlen Urban, Woolworth Bldg., this city, is preparing plans for alterations and an addition to the building of the Lancaster Trust Co., which will cost approximately $125,000. The addition will be 61 × 90 ft., of brick and stone. Bids will be asked for soon.

PHILADELPHIA, PA.—E. F. Durang & Son, Archs., 1200 Chestnut St., are ready to receive bids for the construction of the parochial school to be built at 55th St. and Cedar Ave., for the Roman Catholic Church of the Transfiguration. The building will be of steel and granite, fireproof construction, and will cost $50,000, exclusive of furnishings. It will be three stories in height, and in addition to containing class and school rooms, will contain an auditorium seating 1,000, club rooms, etc.

E. Allen Wilson, Arch., Land Title Bldg., this city, is preparing plans for an apartment building containing 18 apartments to be built at Baltimore Ave. and 55th St. The building will be three stories in height, of brick and stone construction, and plans will be completed in about two weeks. The estimated cost of the building will be about $75,000. The same architect is also preparing plans for 18 residences to be built in the same district, and which will cost about $75,000. They will each be two stories in height.

PITTSBURG, PA.—Ballinger & Perrot, Archs. and Engrs., 1211 Arch St., Philadelphia, have invited bids from sub-contractors for the several branches of the work for a 4-story and basement dormitory building for the Western Theological Seminary, on Ridge Ave., 22d Ward, North Side, Pittsburg. The building will have brick walls with terra cotta trimmings. The floor construction will be of reinforced concrete and tile; the roof of structural steel and concrete. The structure is Y-shaped in plan. It has a frontage on Ridge Ave. of 148 ft., and extends in depth to Chapel Alley, 133 ft.

SCHUYLKILL HAVEN, PA.—Bids will be received by Charles T. Straughn, County Controller, until noon, Jan. 17, for the general construction, including increased water supply, sewage disposal plant, power plant, elevator, heating, ventilating, plumbing and electric wiring complete for the construction of a building for the insane at Schuylkill Haven.

ERIE, PA.—A contract has been awarded to HENRY SCHENK, of Erie, for the erection of a 10-story hotel building in that city, to cost $400,000.

PHILADELPHIA, PA.—E. Allen Wilson, Arch., Land Title Bldg., is preparing plans for 90 2-story houses to be built at 52d and Warrington Aves. for Ferguson & McDowell. The houses will be of various styles of architecture and will cost $200,000.

PITTSBURG, PA.—The Oil Well Supply Co., 213 Water St., has been granted a building permit to erect a 2-story brick and steel warehouse at 21st St. and the Allegheny Valley R. R. The structure is to cost $100,000.

A site has been selected for the proposed city hall, according to reports. The city owns the property which is now occupied by a market house, in Diamond Square. Plans will be prepared and bids will be received as soon as arrangements can be made. Rutan & Russell, 336 Fourth Ave., are the Archs. Joseph G. Armstrong, Dir. of Pub. Wks. Estimated cost, $1,500,000.

WILMINGTON, DEL.—See item under Miscellaneous Contracts: "Sheds, etc."

BALTIMORE, MD.—The lowest bid received on Nov. 30, for the construction of a laboratory, office building and transformer house, for the Sewerage Commission, at Back River, was that submitted by the B. F. BENNETT CO., 123 South Howard St., and the contract has been awarded it. Estimated cost, $59,392. All the buildings will be of concrete, brick and stone. The plans were prepared by C. W. Hendrick, Sewerage Engr.

Frank Benjamin, 1000 Arch St., is having plans prepared by H. J. Tinley, Arch., 11 East Lexington St., for apartment house to be erected at Pimlico and Park Heights Aves. It will be 30 × 100 ft., of brick and stone, with steam heating and plumbing. Cost, $40,000.

J. C. Hemmeter, 1734 Linden Ave., is receiving bids for a residence to be built on University Parkway. It will be of ornamental buff brick, with a terra cotta roof, two and one-half stories high, 53 × 52 ft. R. C. Ulrich, Gunther Bldg., is Arch., and Henry Adams, Calvert Bldg., Engr. Cost, $40,000.

NATIONAL SOLDIERS HOME, VA.—We are officially advised that the contract to erect three barrack buildings here, bids for which were received on Nov. 10, has been awarded to J. H. BRINSON, Hampton, Va., at $136,770. John T. Hume is Treas. of the N. H. D. V. S.

ROANOKE, VA.—Plans are being drawn by Huggins & Bates, Terry Bldg., for a 6-story fireproof apartment house, to be erected on Ninth Ave., by the Jefferson Apartment House Co. It will have a frontage of 45 ft., and will be built of pressed brick, terra cotta and concrete.

ATHENS, W. VA.—It has been announced that the Concord Normal School buildings which were destroyed by fire recently will be rebuilt as soon as arrangements can be made. The old building was valued at $40,000, and it is stated that the new one will be more expensive.

ATHENS, GA.—Plans and specifications were submitted to the committee of the Chamber of Commerce recently by W. L. Seddon, Ch. Engr., of the Seaboard Air Line Ry., showing the proposed passenger depot to be erected in this city by the railway. It will be of brick and concrete. Estimated cost, $65,000.

WAYCROSS, GA.—Bids will be received by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., Jan. 7, for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring) of the U. S. post-office at Waycross.

ATLANTA, GA.—The contract to construct a lodge building for the B. P. O. Elks, has been awarded to MOISE DE LEON. MacEachron & Trowbridge are the Archs. Cost, $70,000.

ATHENS, OHIO.—Bids will be received by the Board of Trustees of the Athens State Hospital, Athens, until noon, Dec. 23, for a hydrotherapeutic plant, to be installed at the Athens State Hospital at Athens. The Osborn Engineering Co., Osborn Bldg., Cleveland, are the Archs. Dr. O. O. Fordyce is Secy. of Bd.

CLEVELAND, OHIO.—The Pennsylvania R. R. Co. plans to construct a passenger station at East 55th St. and Euclid Ave. Property has been purchased for this purpose and it is expected that construction work will start soon. H. R. Leonard, of Philadelphia, Pa., is Engr. of Bridges and Buildings.

COLUMBUS, OHIO.—The Cleveland, Cincinnati, Chicago & St. Louis Ry. plans to build a 1-story building, 288 ft. long, on High St., this city. Estimated cost, $100,000.

Schwarzchild & Sulzberger, meat packers, of Chicago, Ill., plan to erect a warehouse at the north end of the proposed "Big Four" building, mentioned above. G. F. Sulzberger, 217 La Salle St., Chicago, is Vice-Pres.

Plans are being prepared for a 6-story building of brick and stone, for the Benevolent and Protective Order of Elks. It is at present at 60 East Main St. The structure will cost between $110,000 and $125,000, it is reported.

BOWLING GREEN, OHIO.—Two State Normal schools are planned, one at Bowling Green and the other at Kent, at an estimated cost of $400,000, exclusive of equipment. Clement L. Martzolff is Pres. of the School Comn.

CLEVELAND, OHIO.—All the bids received on Nov. 22 by Edward A. Roberts, Clk., City Hall Comn., for the excavation and foundation of the proposed city hall, have been rejected. New bids will be received until Dec. 21.

MARIETTA, OHIO.—The Putnam Building Co. on Dec. 1 awarded the contract for the erection of a 4-story brick and reinforced-concrete business block on Putnam St. to GEORGE I. FOREMAN. Bids on electric elevators and a sprinkling system are being received.

OXFORD, OHIO.—Bids will be received until Jan. 3 by the Board of Trustees of Miami University, for the necessary labor and materials for the erection of a women's dormitory, in accordance with the plans and specifications by Frank L. Packard, Arch., Hayden Bldg., Columbus. Bids must be made out on blanks furnished by the Board of Trustees. W. L. Tobey is Chn. of the Special Building Com.

PORTSMOUTH, OHIO.—Otto Darst, Arch., Brunson Bldg., is preparing plans and specifications for a 4-story wholesale grocery building to be erected by the Gilbert Grocery Co. to take the place of the structure destroyed by fire recently.

INDIANAPOLIS, IND.—The bids received on Nov. 30 by the Board of Public Safety for interior decorating in the new City Hall building were as follows: F. J. Mack & Co., $13,945; the Albert Gall Co., $17,500; William Koch & Co., $17,750; William G. Andrews & Co., Clinton, Iowa, $15,500; the WILLIAM F. BEHRENS CO., Cincinnati, $16,910., and Louis J. Millet, Chicago, $19,000.

COLUMBUS, IND.—C. M. Keller and F. P. Brockman have ordered plans on which to advertise for bids for the construction of a 4-story business block on Fifth St.

The local order of Red Men will soon ask for bids for remodeling a building on Fifth and Franklin Sts., and erecting an addition thereto for lodge hall and business rooms.

INDIANAPOLIS, IND.—Louis E. Burkhart, 518 South Meridian St., is asking for bids for the construction of a theater building at the corner of Meridian and Winkins Sts., to be known as the "Oriental." The building will be 84 × 106 ft., of gray brick with stone trimmings, finished basement and store rooms. W. O. Morck Lombard Bldg., is Arch.

L. H. Sturges, Arch., Board of Trade Bldg., is making plans for the erection of a residence for M. K. Foxworthy, on Drexel Ave. Charles E. Bates, Arch., Lencke Bldg., is drawing plans for a residence for J. H. Diehl, 317 East 13th St., to be built on Meridian St., near 29th. In each of the above, bids will be received by the Architects.

Brubaker & Stern, Archs., 23 North Pennsylvania Ave., have been employed by the Mayor to prepare plans for the following buildings: Fire headquarters; police headquarters; city dispensary, and a municipal garage. H. L. B. Bass & Co., Archs., Indiana Pythian Bldg., have been employed by the Mayor to prepare plans for the construction of three new fire engine houses.

INDIANAPOLIS, IND.—Taylor C. Power is preparing to let a contract for the construction of a 5-story brick business building on the corner of Delaware and Michigan Sts. Estimated cost, $50,000.

The Central Amusement Co., Benjamin V. Barton, 720 North Illinois St., Pres., has ordered plans on which bids will be asked for the construction of a theater building at 135 to 139 North Illinois St. The proposed structure will be 71 × 120 ft., of brick and stone construction.

Layton Allen, Arch., Lombard Bldg., has been employed to draw plans for the erection of a 3-story brick and stone building at the corner of Oliver Ave. and Division St., by Indianapolis Lodge No. 244, Knights of Pythias. Bids will be received by a Building Committee composed of Dr. O. L. Deitch, J. H. Crull and Henry Underwood, all of West Indianapolis.

DETROIT, MICH.—C. Howard Crane, Ford Bldg., Detroit, has awarded the general contract for the proposed theater, 63 × 95 ft., for R. Robinson, care of the Architect, to A. HINCH & SON, 748 Leland Ave., Detroit. Cost, $40,000.

Albert Kahn and E. Wilby, Trussed Concrete Bldg., Detroit, are preparing preliminary plans for a 4-story and basement building, 100 × 132 ft., for T. J. Barry, care of the Detroit "Free Press." It will be heated by steam. Cost, $55,000.

Van Leyan & Schilling, Union Trust Bldg., will revise plans for the 5-story concrete and steel warehouse, 80 × 100 ft., for the Peoples Outfitting Co., Henry Wineman, Secy., 42 Michigan Ave. Cost, $40,000.

DETROIT, MICH.—Smith, Hinchman & Grylls, 710 Washington Arcade, have been selected by the Stevens Estate, Fremont Woodruff, Trustee, Stevens Bldg., to prepare plans for remodelling and building a 3-story addition to the present 5-story and basement building, now occupied by the Benson Co., dry goods merchants. The J. L. Hudson Co., William A. Petzold, Secy., Gratiot and Farmer Sts., have leased the property for a term of years, and will use it in connection with their present large department store.

MUSKEGON, MICH.—Vanderwest & Peas, Montgomery Bldg., are preparing plans for a 3-story and basement theater and office building, 143 × 113 ft., for Stock Co., Muskegon. The structure will be heated by steam. Cost, $50,000.

KALKASKA, MICH.—The Grand Rapids & Indiana Ry. Co., F. J. Stimson, Div. Engr., Grand Rapids, have let the general contract for their passenger station to be located at Kalkaska, to PHILIP REHKOPF, of Petoskey, Mich. The general contractor is taking bids on steam heating. Cost, $40,000.

MADISON, WIS.—Ferry & Clas, Archs., 419 Broadway, Milwaukee, are preparing plans for the construction of a 7-story fireproof hotel, 120 × 132 ft., at South Carroll and West Main Sts. Kletsch Bros., Milwaukee, are the owners. Cost, $400,000.

FORT DODGE, IOWA.—The Leighton Supply Co. plans the erection of a fireproof warehouse, at a cost of $60,000, it is stated.

OTTUMWA, IOWA.—The Sisters of the Humility of Mary contemplate the erection of an academy north of the city to cost, complete, about $200,000. John O'Connor, Arch., Fleming Bldg., Des Moines, has prepared plans for a 4-st[illegible] building. Work will probably be started in the spring.

MANKATO, MINN.—E. Brielmaier & Sons, Archs., University Bldg., Milwaukee, Wis., are preparing plans for a motherhouse and academy to be erected by the Sisters of Notre Dame at Mankato. Work is to be commenced in the spring. The building will be erected in parts, the first plans calling for a structure 55 × 160 ft. and three stories high.

MINNEAPOLIS, MINN. — Two freight houses, 45 × 1,050 ft. each, will be built here, it is stated, by the Great Northern Ry. and the Chicago, Burlington & Quincy R. R. The property comprises about 30 acres and lies between Fifth and Seventh Sts., North, Sixth Ave., North, and Oak Lake Ave. J. M. Gruber, of St. Paul, is Gen. Mgr. of the G. N. Ry. and J. Rivett, Supt. Bldgs., Lincoln, Neb. Estimated cost, $500,000.

TOPEKA, KAN.—The Atchison, Topeka & Santa Fe R. R. has appropriated nearly $1,000,000 for station and other improvements in Kansas. This includes $4[illegible],963 for new buildings at headquarters and the shops in Topeka, and $587,697 for new depots, track changes and shop buildings at various places. C. F. W. Felt, of Topeka, is Ch. Engr.

BROOKINGS, S. DAK.—Bids will be received until noon, Dec. 28, for the construction, including heating, plumbing and electric work of a court-house. Bell, Tyrie & Chapman, Northwestern Bldg., Minneapolis, Minn., are the Archs, and O. J. Otternes, County Audr.

WACO, TEX.—The contract to erect the proposed high school building here has been awarded to J. E. JOHNSON, of Waco. It will be located on Columbus St. between Eighth and Ninth Sts. and will be four stories high. Cost, $107,000.

EL PASO, TEX.—Brubaker & Stern, Archs., 23 North Pennsylvania Ave., Indianapolis, Ind., are preparing plans for a $100,000 building for H. B. Stevens & Co. in El Paso. The business building will be of reinforced-concrete construction, and bids will be received upon completion of plans.

SEATTLE, WASH.—The MANHATTAN CO., Central Bldg., has been awarded the general contract for the erection of the Frye-Bruhn warehouse on the block bounded by Seneca, Spring and Post Sts., and Western Ave. The building will be five stories high instead of four, as originally announced, and the contract calls for the completion of the first four stories in 120 working days. The contract price was $125,000. Bids on subcontracts will be asked for shortly.

Alexander Bridge, Pres. of the A. Bridge Co., clothiers, 103 First Ave. South, plans to erect a 10-story, 60 × 108-ft., concrete hotel and store building to cost $1[illegible]000, on the northeast corner of Second Ave. and Blanchard St.

SEATTLE, WASH.—Bebb & Mendel, Archs., Denny Bldg., have awarded the general contract for the erection of the 16-story steel and concrete office building for James D. Hoge, at Second Ave. and Cherry St., to the THOMPSON-STARRETT CO., Fourth Ave. South, and Jackson St. The building is expected to cost about $900,000.

The contract to erect the proposed Metropolitan Theater, for Klaw & Erlanger and Charles Frohman, has been awarded to the STONE & WEBSTER ENGINEERING CORPORATION, M. J. Whitson, Mgr., 147 Milk St., Boston, Mass. It will be located on University St., near Fourth Ave.

WENATCHEE, WASH.—Bids will be received, we are officially advised, about Jan. 15, for the erection of a concrete and brick store building, for the Wenatchee Department Store. It will be a one story and basement structure, 175 × 120 ft. N. I. Neubauer is Prop. and Hiram Harris, Mgr.

SEATTLE, WASH.—Howells & Stokes, Archs., 100 William St., New York, with branch offices in the Henry Bldg., Seattle, have prepared preliminary plans for a 12-story reinforced-concrete office building, to be erected on Third Ave., between Madison and Spring Sts., for Pope & Talbot, lumber dealers of San Francisco, and the Puget Mill Co., of this city. The building will be 111 × 240 ft., and will follow the style of the Henry and White buildings. The estimated cost of the proposed structure is $1,000,000.

PORTLAND, ORE.—J. A. Ingram has completed plans and specifications for a 12-story fireproof office and store building, 50 × 100 ft., to cost about $500,000. It will be of reinforced-concrete construction faced with hydraulic pressed brick, with white terra cotta trimmings. The building will be erected on the northeast corner of Fourth and Washington Sts., for the "Association of Business Property Owners," of which C. A. Sheppard is Pres., and G. F. Martin, Secy. and Treas.

*PORTLAND, ORE.—Bids will be received at the office of R. H. Thomas, Clerk, School District No. 1, Multnomah County, Ore., Tilford Bldg., Portland, until 5 p. m., Dec. 23, for the erection of a high school on Block 202, city of Portland. Whitehouse & Fouilhoux, Lumbermen's Bldg., are the Archs.

PORTLAND, ORE.—The Turnverein Society plans to construct an 8-story building, at the corner of Fourth and Yamhill Sts. The ground space is 100 × 100 ft. A Building Committee, including the following, has been appointed: Emil Luecke, Fritz Eiler and Ernest Miller. The estimated cost is $250,000.

Claussen & Claussen, Archs., Board of Trade Bldg., are preparing plans and specifications for a 4-story brick apartment house on 16th St., between Salmon and Taylor Sts. J. Degendorf is the owner. Cost, $60,000.

TOLEDO, ORE.—Bids will be received by the Board of Directors of School District No. 2, Lincoln County, until 8 p. m., Dec. 10, for the erection and completion of a high school building. Charles H. Burggraf, of Albany, Ore., is the Arch.

LONGBEACH, CAL.—The Pacific Electric Ry. Co. plans to erect a depot on the Oxford property fronting on Ocean Ave., it is stated. J. McMillan, of Los Angeles, is Gen. Mgr.

OAKLAND, CAL.—A business block at the southeast corner of Broadway and 19th St. is contemplated by Max Koenig, 948 Fallon St. It will be five stories high and will cost approximately $80,000.

LOS ANGELES, CAL.—Sen. William A. Clark, of Butte, Mont., plans to erect a new building for the Y. W. C. A., as a memorial to his mother, Mary Andrews Clark. Cora L. Tatham is Gen. Secy. and Mrs. D. K. Edwards, Pres of the Bd. of Directors. Estimated cost, $150,000.

Parkinson & Bergstrom, Archs., Security Bldg., have prepared plans for the erection of a group of buildings on El Centro St., between Waring and Gregory Sts., Colegrove, for the Los Angeles Orphans' Home Society. Plans provide for an administration building, 50 × 148 ft., girls' and boys' cottages, 58 × 54 ft. each, and a nursery, 66 × 54 ft. The buildings will be of brick.

PASADENA, CAL.—The local lodge of the B. and P. O. Elks has purchased a site on West Colorado St. on which a lodge building will be erected, to cost $40,000. Myron Hunt, Arch., Union Trust Bldg., Los Angeles, has prepared plans for the building.

REDLANDS, CAL.—Plans are being prepared for the erection of a lodge building for the B. and P. O. Elks. Estimated cost, $50,000.

WHITTIER, CAL.—Plans have been completed by J. C. Smith, Arch., for the construction of a school building here to replace the one destroyed by fire in September. Mark Keppel is Supt of Schools. Cost, $50,000.

LONG BEACH, CAL.—The LONG BEACH BRICK CO., Seventh and Ximeno Sts., has been awarded the contract for furnishing brick for the proposed polytechnic high school here. L. S. Atkinson, of Los Angeles, is general contractor. About 2,000,000 brick are required. Amount, $13,998.

LOS ANGELES, CAL.—John C. Austin, Arch., Wright & Callender Bldg., is preparing plans for a second apartment house to be erected on West Seventh St. for R. H. Howell. It will be 80 × 112 ft., three stories high, of concrete, brick and steel construction.

COLEGROVE (Los Angeles post-office), CAL.—The ALTA PLANING MILL CO., Eighth and Alameda Sts., Los Angeles, has been awarded the general contract for the erection of a group of buildings, at Colegrove, for the Los Angeles Orphans' Home Society. Amount, $40,997. The contract for plumbing and heating has been awarded to the THOMAS HAVERTY CO., 511 South Los Angeles St., at $7,490; electric wiring, to the FOULKES, GAYLORD CO., Security Bldg., at $550. The plans provide for an administration building, 50 × 148 ft., girls and boys cottages, each 58 × 54 ft., a nursery, 66 × 54 ft. The buildings will all be two stories high. Parkinson & Bergstrom, Security Bldg., are Archs.

MONTREAL, QUE.—The post-office building is to be altered and renovated at a cost of about $250,000. R. C. Desrochers, of Ottawa, Ont., is Secy. Bd. Pub. Wks.

PETERBORO, ONT.—Bids will be received until 4 p. m., Dec. 21, by R. C. Desrochers, Secy. Dept. Pub. Wks., Ottawa, for additions and alterations to the public building in Peterboro. William Blackburn, this city, is Arch.

OTTAWA, ONT.—The Directors of St. Luke's Hospital have decided to build an additional wing and make improvements, to cost $80,000.

Plans have been completed for the new plaza which is to be constructed by covering over the space between the Sappers' and Dufferin bridges, and bids will be called for about Jan. 1. The estimated cost is between $90,000 and $100,000. The plaza, in conjunction with the Chateau Laurier, will effect a transformation of that section of the city. The original plan contemplated steel supports, but this was abandoned and the flooring will now be supported by ornamental arches of reinforced concrete. The flooring will be of either asphalt or wooden blocks, probably the former, and the Grand Trunk Ry. Co. will extend it to the main entrance to the new hotel. The specifications call for the strengthening of supports of the Dufferin bridge and slightly altering the grade of Sappers' bridge in order that the whole square may be of a uniform level. N. J. Ker is City Engr.

TORONTO, ONT.—A church building and parish house is contemplated by the congregation of St. Stephen's Church. The Rev. Canon Broughall is Rector. Estimated cost, $70,000.

VANCOUVER, B. C.—Bids will be received by W. Lazlitt until noon, Dec. 12, for the erection of an office building at the southwest corner of Hastings and Carroll Sts., Vancouver, for the British Columbia Electric Co. Harbury Somervell, Exchange Bldg., Vancouver, is Arch. Noted on Nov. 24.

VANCOUVER, B. C.—The Trades and Labor Council has taken out a permit for the construction of a new temple, six stories high. Estimated cost, $127,000.

R. Marpole, Gen. Executive Agent, Canadian Pacific Ry., has awarded to J. L. SKENE and J. S. CHRISTIE, a contract for the construction of the Robinson St. annex to the Hotel Vancouver. It will be five stories high. Cost, $300,000. Honeyman & Curtis, of Vancouver, are the Archs.

The Avenue Theatre Co. has taken out a permit for a theater block, costing $80,000, to be erected at the corner of Westminster Ave. and Harris St.

VICTORIA, B. C.—The Union Club will erect a new building at the corner of Humboldt and Gordon Sts., six stories high, costing between $120,000 and $150,000. Competitive plans will be invited from architects of Victoria, Vancouver, Tacoma and Seattle. F. M. Kattenbury, of Victoria, is Chn. of the Club Committee.

TAMPICO, MEX.—Brubaker & Stern, Archs., 23 North Pennsylvania Ave., Indianapolis, Ind., have been commissioned to prepare plans for an 8-story hotel at Tampico. The building will be 120 × 134 ft., of reinforced-concrete construction. Estimated cost, $300,000.

WATER SUPPLY—IRRIGATION.

(*Denotes that this work is advertised in Engineering News.)

CAMBRIDGE, VT.—The city is considering the construction of water-works. Estimated cost, $15,000.

WEST BRIDGEWATER, MASS.—The Town Trustees are considering the extension of the water mains. Estimated cost, $10,000.

BARRE, VT.—The citizens on Nov. 29 voted to issue $45,000 of bonds for constructing the Orange Brook reservoir.

OAKVILLE, CONN.—Surveys are being made for the construction of water-works and sewers here.

NEW YORK, N. Y.—Bids will be received by Henry S. Thompson, Comr. Water Supply, Gas and Electricity, until 2 p. m., Dec. 14, for plumbing, road building, masonry, fencing, and for making general repairs to the buildings and grounds at the various pumping stations Boros. Manhattan and the Bronx.

NEW YORK, N. Y.—Bids will be received by Henry S. Thompson, Comr. Water Supply, Gas and Electricity, until 2 p. m., Dec. 14, for furnishing, delivering and erecting a stand-pipe at Grymes Hill, Boro. Richmond.

SCHUYLKILL HAVEN, PA.—We are officially advised that plans have been completed by T. Chelkley Hattan, Consult. Engr., Wilmington, Del., for the installation of a gravity water system. The plans include a distribution system for the entire borough. Bids will not be asked before 60 days, as a vote to issue bonds will first be taken. W. A. G. Paul is Chn. Water Com.

PHILADELPHIA, PA.—Contract has been awarded by the Otis Elevator Co. to the TURNER-FORMAN CONCRETE STEEL CO., 1314 Arch St., Philadelphia, for the construction of a reinforced reservoir here, 73 × 16 ft., at $5,000.

SOMERSET, PA.—The borough will construct a reservoir, lay pipe, and otherwise improve the water system. Estimated cost, $25,000.

SCHUYLKILL HAVEN, PA.—See item under Buildings.

BRUNSWICK, MD.—The city has awarded to EDW. S. MOBLEY & BRO., Frederick, Md., the contract for furnishing water pipe, hydrants, gate valves, etc., for water-works improvements here.

WASHINGTON, D. C.—Bids were received on Dec. 3 by the Bureau of Yards and Docks, Navy Dept., for dry dock pumping equipment, Navy Yards, New York and Puget Sound, and Naval Station, Pearl Harbor, H. T., Specification No. 1739. The bids follow: Camden Iron Works, Haddon Ave. and Line St., Camden, N. J., Item (1) $310,500, Westinghouse equipment; $331,700, General Electric equipment; (2) $305,000, Westinghouse equipment; $321,700, General Electric equipment; add conditionally, $12.547, $17,504, $22,403, $19,051. Alberger Pump Co., 140 Cedar St., New York, Item (1) $323,454. D'Olier Engineering Co., Broad and Chestnut Sts., Philadelphia, Pa., Item (1) $347,645. Charles C. Moore & Co., 99 First St., San Francisco, Cal., Item (1) $378,643 and $384,037; $5,000, add; $10,000, add; $3,400, deduct; (2) $6.500, deduct. Allis-Chalmers Co., Milwaukee, Wis., Item (1) $366,888 and $366,238; (2) $357,038 and $356,388. Henry R. Worthington, 115 Broadway, New York, Item (1) $353,357 and $338,888; (2) $335,976 and $327,142; add conditionally, $6,990, $4,370, $6,950, $5,650, $8,370, $8,935, $16,641.

PORTSMOUTH, VA.—An election will soon be held here to vote on issuing $600,000 of bonds for the construction of water-works. V. O. Cassell, Jr., is City Engr.

RICHMOND, VA.—The city is considering the enlargement and improvement of water mains and the water system in Washington Ward. C. E. Bolling is City Engr.

ROCK HILL, S. C.—The City Council has authorized the Board of Public Works to proceed with the construction of water-works and an arc electric light plant.

YORKVILLE, S. C.—Bids are asked until Dec. 15 by the city for installing a mechanical filtration plant with a capacity of 50 to 500 gallons per min. Tobin G. Barnwell is Supt. W.-Wks.

ATLANTA, GA.—Bids will be received until Dec. 15 by W. Z. Smith, Gen. Mgr., Atlanta Water-Works, for furnishing material and grading the new reservoir, and for stone and rip-rapping the embankments and slopes.

CLEARWATER, FLA.—Bids are being asked by the town for installing a water-works system, material to be furnished by the town.

WETUMPKA, ALA.—We are officially advised that the city has engaged the Solomon-Norcross Co., Candler Bldg., Atlanta, Ga., to make a betterment report on the present water-works and electric light plant, and estimates for sewer system.

PATTERSON, LA.—Contracts will probably be awarded in about 30 days by the F. A. Jones Co., Engrs., Houston, Tex., for the construction of the municipal water-works here. Estimated cost, $30,000. T. W. Schmidt is City Clk. Noted on Nov. 3.

EUCLID, OHIO.—Bids are asked until Dec. 19 by Nelson J. Brewer, Village Clk., for constructing a 6-in. water main in Woodcliff Ave.

TOLEDO, OHIO.—J. R. Crowell, Dir. Pub. Ser. has estimated the cost of laying high pressure mains, and erecting the pumping station and installing pumps, at about $200,000. The cost is divided as follows: $125,000 for mains and installation; $42,000 to be paid by the city direct, the balance by the 1,600 benefited property owners; and $75,000 for the pumping station and engines, the plant to be placed on the city's own ground, probably beneath the west approach of the new Cherry St. bridge.

SYLVANIA, OHIO.—The Riggs & Sherman Co., The Nasby, Toledo, Ohio, has been engaged to prepare plans and specifications for the construction of a municipal water-works system.

CANTON, OHIO.—Bids will be received until Dec. 14 by the city for the construction of a steel reservoir of 1,000,000 gallons capacity; one double-action triplex power pump, one 150 HP. alternating current motor, one 250 HP. condensing steam engine, directly connected with a 150 KVA. generator and exciter, several fire hydrants and for drilling 6 and 8 in. pipe wells. R. F. Harbert is Dir. Pub. Ser.

WEST CARROLTON, OHIO.—Bids were opened Nov. 16 by the Board of Public Affairs for water works improvements. Contracts have been awarded as follows: To FAIRBANKS, MORSE & CO., Cincinnati, two triplex pumps, one 25 HP. motor and one 25 HP. gasoline engine, $3,070; to ERNEST KROEMER, 647 Oak St., Dayton, for pumping station; to J. PLOCHER & SON, Miamisburg, Ohio, for reservoir, 60 cts, per cu. yd. excavation and $8.25 per cu. yd. for concrete, and laying pipe, 28 cts. per ft; to U. S. CAST IRON PIPE & FOUNDRY CO., Cincinnati, for furnishing 8-in. c.-i. pipe, $22.25 per ton.

CINCINNATI, OHIO.—The city is considering the abandonment of the pumping house in Eden Park, and the construction of another leading rising motor main from the Eastern Ave. and Torrence Road station of the water-works. F. H. Shipley is City Engr.

DUNKIRK, OHIO.—The contract for constructing the water-works system here has been awarded to the NATIONAL CO., South Bend, Ind.

WOOSTER, OHIO.—The city has voted to construct a new water system to cost $30,000.

DOVER, OHIO.—Bids will be received by P. W. Hill, Dir. of Pub. Serv., until noon, Dec. 12, for the extension of the water mains in Walnut St., Tenth St., and from the stand-pipe to Crater Ave.

EVANSVILLE, IND.—We are officially advised that bids were opened on Sept. 29 for the improvements of the filter plant and the purchase of a pump to pump water from the river to the filter plant. Contracts as yet have not been awarded. Alvord & Burdick are Engrs., Hartford Bldg., Chicago, Ill.

BIG RAPIDS, MICH.—The cost of the construction of a cement and steel reservoir here has been estimated at $30,000. W. G. Fargo is Engr.

SAGINAW, MICH.—The contract for the intake and pump well for the Eastern District water works has been let to W. N. SAGER, Saginaw, at $16,746. The only other bidder was A. Gelinas & Sons, Saginaw, $16,982. The work embraces laying 1,200 ft. of 48-in. reinforced concrete pipe, one new suction well one temporary pile and timber intake with two 48-in. lightweight valves and three 48-in. sluice gates. R. M. Roberts is City Engr.

SANDUSKY, MICH.—The city contemplates the erection of a water-works and electric light plant. F. T. Benedict is City Clk.

GRAND RAPIDS, MICH.—The Board of Public Works, S. A. Freshney, Secy., will receive bids until 8 p. m., Jan. 19, for the water-works and filtration plant, to be of fireproof construction, one story, 178 × 178 ft. and 40 × 66 ft.; repair shop, two stories, 60 × 60 ft. Estimated cost, $400,000. Williams & Crowe, Grand Rapids, are Archs.; Hering & Fuller, 170 Broadway, New York, are Engrs.

HARBOR SPRINGS, MICH.—We are officially advised that the contract for furnishing pipe for the proposed water-works here has been awarded by the city to J. B. CLOW & SONS, Chicago, Ill. W. R. Renwick is Engr.

McLEANSBORO, ILL.—The citizens on Dec. 1 voted to issue $20,000 of bonds for the construction of a dam, spillway and reservoir, and to extend the water mains.

CHICAGO, ILL.—We are officially advised that the city contemplates installing two 25,000,000 gallons capacity, electrically operated turbine pumps as an auxiliary to present steam reinforced pumping engines at the 22d St. pumping station. John Ericson is City Engr.

B. I. Mullaney, Com. Pub. Wks. has asked the Finance Committee for an appropriation of $325,000 for the purchase of iron pipe feeder mains for the Water Department.

GALESBURG, ILL.—The citizens have voted $75,000 of bonds for extending the water system. F. N. Connolly is City Engr.

KEITHSBURG, ILL.—Bids will be received until Dec. 9 by the Commissioners of the Keithsburg Drainage District, at the store of Wickett Bros., Keithsburg, for furnishing, delivering and erecting a complete motor-driven pumping plant, including excavating, refilling foundations and a building to house the plant. Bids are to include two centrifugal pumps, 18 and 12-in., respectively, together with steel plate rivets, suction and discharging piping, two constant speed induction motors, etc. The Harman Engineer Co., 120 Fredonia Ave., Peoria, Ill., is in charge of the engineering work.

LOMBARD, ILL.—Bids will be received until Dec. 15 by the Board of Local Improvements for a water distribution system, including c.-i. mains, hydrants, valves, valve boxes, connections, etc. George W. Sturtevant, Fisher Bldg., Chicago, Ill., is Engr.

MADISON, WIS.—The Council has authorized the issuance of $26,000 of bonds for the improvement of the water-works system.

RICE LAKE, WIS.—The Council has decided to lay water mains in Douglas St.

SPARTA, WIS.—Permission has been granted to the Water Commission by the City Council to ask for bids for the installation of a new pump, of 1,500,000 gallons capacity per day, at the water-works station.

RHINELANDER, WIS.—The City Council, is considering the purchase of the water-works system.

OTTUMWA, IOWA.—The citizens on Nov. 22 voted to purchase the water-works and power plants in Ottumwa owned by the Public Water Co. Improvements by constructing eight to ten miles of extension additional filters, sedimentation basins, etc, will be made next year. John T. Brady is City Engr.

LOGAN, IOWA.—The citizens are considering the construction of a water supply and sewer system.

CORYDON, IOWA.—Bonds for $45,000 for constructing of water-works and a sewerage system have been sold.

TRACY, MINN.—Bids will be received until Dec. 8 by Lester J. Fitch, City Recdr., for constructing an 8-in. drilled well, including casing.

MINNEAPOLIS, MINN.—The contract has been awarded to HENRY R. WORTHINGTON, 115 Broadway, New York, for two electricall driven, 20,000,000-gallon centrifugal pumps, at $28,612.

DULUTH, MINN.—The Board of Water and Light Commissioners has asked for a $300,000 bond issue for the following contemplated improvements: Installation of new pump at the Lakewood station with a capacity of 1,800,000 gallons daily, $30,000; building of middle system reservoir at 13th St. and Second Ave. East., $50,000; extension of 12-in. return pipe from the reservoir to Sixth St., $10,057; 10-in. water main and 4-in. gas main in 26th Ave. West, $99,728; laying of 12-in. pipe from the booster pump station to Central Ave., $12,500; replacement of one of the pumps at the booster station by one with twice the capacity, $6,500; installation of a pump with a daily capacity of 3,500,000 gallons at the station now supplying normal school district, $12,500; removing Woodlawn pump work to Victoria St. and installation of additional pump with a daily capacity of 1,500,000 gallons, $10,000; installation of additional water and gas mains in Ensign school district, $25,708. T. F. McGilvray is City Engr.

FORT LEAVENWORTH, KAN.—See item under Streets and Roads.

STRATTON, NEB.—The Village Clerk will receive bids until 1 p. m., Dec. 9, for the construction of a complete system of water-works.

LINCOLN, NEB.—Bids will be received by the city until noon, Dec. 15, for water pipe as follows: 170 tons of 16-in.; 35 tons of 12-in.; 150 tons of 6-in.; 75 tons of 4-in. and 5 tons of special, Class C standard specifications. James Tyler is Water Comr.

DORCHESTER, NEB.—We are officially advised that C. E. COON & CO., 742 Brandeis Theatre Bldg., Omaha, Neb., has secured the contract for the construction of the water-works plant here, and are in the market for c.-i. pipe, steel tower and tank, hydrants, pumps, etc.

FARGO, N. DAK.—Bids will be received by E. R. Orchard, City Audr., until 5 p. m., Dec. 19, for the construction of water mains in Water Main Districts Nos. 1 and 2.

LAKE PRESTON, S. DAK.—The city has voted bonds for $5,000 for the improvements at the water-works.

HURON, S. DAK.—The citizens, it is reported, have voted $40,000 of bonds for the construction of water-works.

SANDERS, MONT.—The Secretary of the Yellowstone Irrigation District will receive bids until 10 a. m., Dec. 10, for enlarging and extending the Sanders Canal, involving the excavation and placing embankment of 499,700 yds. of earth and constructing a 340,-ft. tunnel and culverts. The Henry Gerharz Engineering Co., Billings, Mont., is in charge of the engineering work.

LEWISTON, MONT.—The city will rebuild the water-works system. Iron mains will replace the wooden mains now in use. Estimated cost, $80,000.

PLATTSBURG, MO.—L. G. Knapp & Co., Water Works Bldg., Kansas City, are preparing preliminary plans for the construction system of water-works and sewers here. Bonds for $55,000 will be issued. R. H. Musser is Mayor.

KANSAS CITY, MO.—Bids will be received by the Fire and Water Board until Dec. 22 for furnishing ⅝, ¾, 1, 1½ and 2-in. water meters. E. B. Harrington is Secy. Bd.

PORTLAND, ARK.—The city has engaged Dickinson & Watkins, Consult. Engrs., Little Rock, Ark., to supervise the construction of water-works. The sum of $35,000 will be used for water-works, a sewer system and electric-light plant.

SAN AUGUSTINE, TEX.—Plans have been completed by the O'Neil Engineering Co., Dallas, Tex., for the construction of new water-works here. Estimated cost, $235,000. Noted on Nov. 10.

RAYMONDVILLE, TEX.—The La Noria Irrigation & Development Co., Raymondville, has been incorporated, it is reported, with a capital of $18,000. The incorporators include William S. Overstreet, S. L. Gill, C. H. Pease and others.

FAIRFAX, OKLA.—The city has awarded contract to the SOUTHWESTERN ENGINEERING CO., Oklahoma City, Okla., for the construction of the water-works and sewer system. Estimated cost, $50,000.

BRITTON, OKLA.—Bids will be received until Dec. 12 by D. L. Sellers, City Clk., for water-works materials, including 4, 6 and 8-in pipe, hydrants, valves, elevated tank, pumps, etc. Estimated cost, about $35,000.

FORT BAYARD, N. MEX.—Bids will be received until 11 a. m., Dec. 24, by Capt. J. R. McAndrews, Constr. Q. M., U. S. A., Fort Bayard, for furnishing and installing complete two compound, duplex, steam pumps.

TACOMA, WASH.—Nicholas Lawson, Comr. Dept. Light and Water, has been authorized to ask for bids for the construction of a large storage reservoir for the Green River gravity water system. Capacity 100,000,000 gallons. Estimated cost about $310,000.

FORT GEORGE WRIGHT, WASH.—Bids will be received until 11 a. m., Dec. 10, by Lieut. A. L. Sneed, Constr. Q. M., U. S. A., for sinking a 10-in. tubular deep well here.

WENATCHEE, WASH.—The sum of $100,000 will be spent on an irrigation canal that will take water from Snow Creek, a tributary of Icicle River, and distribute it on land between Leavenworth and Pehastin. Actual construction on the project, which is backed by a company composed of Walter Swalwell, Everett, Wash., S. P. Beecher, Wenatchee, and capitalists of Seattle, will begin early in the spring. The survey has been made under the direction of J. W. Sussex, C. E., Wenatchee.

MEDFORD, ORE.—The City Council has awarded to JAMES A. MEAR, Portland, Ore., the contract for the construction of the new water system here.

UNION, ORE.—L. C. Kelsey, Salt Lake City, Utah, is preparing plans for water-works improvements here. Estimated cost, $71,000. L. D. Wright is City Recdr.

KLAMATH FALLS, ORE.—The Secretary of the Interior has rejected all bids received by the Reclamation Service here for furnishing a skid dredge for dredging canals in the Klamath irrigation project as excessive. Two bids were received as follows: Stockton Iron Works Co., Stockton, Cal., $7,990; Lidgerwood Mfg. Co., 1917 Fisher Bldg., Chicago, Ill., $8,000.

SACRAMENTO, CAL.—The Board of City Trustees has authorized G. N. Randle, City Engr., it is stated, to prepare specifications for a pump of 15,000,000 gallons capacity at the water-works at Front and I Sts.

CORNING, CAL.—Bids will be received about Jan. 1 for the construction of water-works and sewer system. Estimated cost about $68,800. W. F. Lunning, Red Bluff, is Engr.

HOLTVILLE, CAL.—The city has let the contract for trench excavating for the city's water system to HARRIS & EDWARDS. The amount of trench will total about 33,000 ft.

PASADENA, CAL.—The Pasadena Lake Vineyard Land & Water Co., has made an offer to the Mayor and City Council to construct a 2,000,000 gallon reservoir and distributing system, to furnish the "Dry Tract," with a permanent water supply. T. S. Van Ornum is City Engr.

OAKLAND, CAL.—The Bay Cities Water Co. has let a contract to CRANE & CO., Oakland, for 13 miles of pipe, the beginning of the system in the East Oakland division. The pipe will vary in size from 4 to 12 ins.

SAN JOSE, CAL.—Bids will be received until 11 a. m., Dec. 19, by the Supervisors for 2,500 ft. of 12-in. pipe to be delivered at Almaden R. R. station. Henry A. Pfister is Clk.

LOGAN, UTAH.—The city is considering the construction of a large reservoir in Logan Canyon to impound the waters of Logan River.

MONTREAL, QUE.—The contract has been awarded to the JOHN McDOUGAL CALEDONIAN WORKS CO., Ltd., Montreal, for a motor-driven centrifugal pump of 5,000,000 gallons capacity at $7,716. It consists of a 16-in. two-stage turbine pump, driven by an Allis-Chalmers-Bullock 500 HP. wound rotor motor.

WINNIPEG, MAN.—The Board of Control has awarded the following contracts for furnishing materials for the domestic water-works system to the CANADA IRON CORPORATION, Montreal, Que., for water pipe at $37.50 per ton, or $47,538; I. McAVITY & SONS, St. John, N. B., for valves, $3,523; and to the CANADIAN FAIRBANKS CO., Winnipeg, Man., for hydrants at $37 each. Bids were opened Nov. 14.

SEWERS.

(*Denotes that this work is advertised in Engineering News.)

BOSTON, MASS.—Sewers in Western Ave., Brighton District. Contract was awarded Dec. 2, to ANTONY CEFALO, $11,943. Other bidders were Murphy & Dolan, $12,287; Thos. H. Connolly, $13,371; Mark H. Lynch, $13,781; Luke D. Mullen, $16,623; J. B. O'Rourke & Co., $17,659; John McCourt & Co., $18,367; Chas. J. Jacobs Co., $22,439; Henry G. Porter, $22,451.

BOSTON, MASS.—Bids will be received by Louis K. Rourke, Supt. of Streets, until Dec. 9 for sewers and surface drains in Litchfield St., Brighton District, and Willow St., West Roxbury District.

OAKVILLE, CONN.—See item under Water Supply—Irrigation.

NYACK, N. Y.—The construction of a sewer in Sixth and Seventh Ave. is under consideration.

BUFFALO, N. Y.—The City Council has ordered the construction of a 10 in. tile sewer in High St., between Michigan and Neptune Sts.; also construction of a 12 in. tile sewer in Olcott Ave. from South Park Ave., 300 ft. easterly.

BROOKLYN, N. Y.—Bids will be received by Alfred E. Steers, Pres. of the Boro. of Brooklyn, until 11 a. m., Dec. 21, for furnishing material and installation of sewers in various streets and avenues.

NEWARK, N. J.—The contract for the construction of the Avenue C & Dawson St. Storm Water sewers was awarded by the Board of Street and Water Commissioners to JERSEY PAVING CORPORATION at $5,253.

NEWARK, N. J.—The Newark Common Council has voted to enter into a contract with the Passaic Valley Sewerage Commissioners, in conjunction with other municipalities in the Passaic Valley sewerage district. The project is to build a massive trunk sewer with branches to extend from the Passaic Falls at Paterson, to an outlet under New York Bay near Robbins Reef. The estimated cost of sewer and branches with a sedimentation and screening plant on the Newark meadows is about $12,500,000.

HARRISBURG, PA.—W. J. Wallenbeck was the low bidder on the construction of sewers in seven sections of the city. The streets were as follows: 17th, State to Boas; Boas, 17th to 18th; 18th, Forster to Herr; Forster, 18th to City Line; Park, 18th to 19th; 19th, Park to Market; Market, 19th to 21st, Seventeenth, W. J. Wallenbeck, $7,721; H. Apperman, $8,765; W. H. Apperman, $9,790; Stucker Bros., $8,889; W. A. Lynch, $9,155. Park, Henry Apperman, $5,619; W. H. Apperman, $8,137; Stucker Bros., $8,179; W. H. Lynch, $6,915; Chas. Fisher, $6,960.

SCHUYKILL HAVEN, PA.—See item under Buildings.

WAYNESBORO, PA.—The Street Committee has made an agreement with Lewis Snider for the installation of a sewer from his properties on Third St. to the Borough sewer.

DOVER, DEL.—L. W. CLIFTON has been awarded the contract for the sewer main to be installed by Council, from Division St. northward to American Ave., and eastward to the westerly side of Pennsylvania Ave.

FORT WASHINGTON, MD.—All bids received by the constructing quartermaster on Nov. 7 have been rejected. Bids will be readvertised some time in Feb.

BALTIMORE, MD.—Bids received by the Sewerage Commission, Calvin W. Hendricks, Ch. Engr., for the construction of the McMechen St. intercepting sewer were as follows: McCay Engineering Co., 9 East Lexington St., Baltimore, Md., $43,552; B. F. Sweeten & Son, 820 Sharp St., Baltimore, Md., $44,864; William McCarthy & Co., 1007 American Bldg., Baltimore, Md., $45,987; Ryan & Reilly, 411 American Bldg., Baltimore, Md., $46,888; James Ferry & Sons, Pittsburg, Pa., $51,068; The Whiting-Middleton Construction Co., Sexton Bldg., Baltimore, Md., $56,061; W. H. & C. F. Thompson, 600 Law Bldg., Baltimore, Md., $56,817; Irwin Bros., 413 American Bldg., Baltimore, Md., $61,463.

*WASHINGTON, D. C.—Bids will be received at the office of Commissioners, Washington, D. C., until 2 p. m., Dec. 19, for the construction of sewers in the District of Columbia. Plans and specifications on file at the office Ch. Clk., Engineer Dept. Room No. 427, District Bldg., Wash.

RICHMOND, VA.—The construction of a sewer is under consideration from 31st St. to Park Road and join the Bloody River Ravine sewer now under construction. The estimated cost is about $12,430. Charles E. Bolling is City Engr.

PARKERSBURG, W. VA.—Bids will be received by the Board of Affairs of this city until 8 p. m., Dec. 15, for the furnishing of material and the construction of an eight inch sewer in William St., from Hutchinson St to Virginia Ave. including "Y" branches, house connections, manholes, etc. Plans are on file in the office of Frank Goode, Audr.

ROME, GA.—Construction work has been started on the Third Ave. storm sewer. M. N. Worrell is City Engr.

BESSEMER, ALA.—The City of Bessemer has carried the proposition to issue bonds to the amount of $15,000 for the installation of sewers.

WETUMPKA, ALA.—See item under Water Supply—Irrigation.

NASHVILLE, TENN.—Sewers will be constructed in the northern, eastern and southern portion of the city. An issue of $500,000 has already been voted upon. George W. Stainback is Chn. of Board of Public Works.

BUCYRUS, OHIO.—The city council has adopted a resolution declaring it necessary to improve a certain portion of Middletown St. by installing a sewer.

GALION, OHIO.—The contract has been awarded to GEORGE J. BOCK & SONS., Coshocton for the installation of sewer laterals in the fifth district at $10,663.

BUCYRUS, OHIO.—The Riggs & Sherman Co., The Nasby, Toledo, has been engaged to prepare plans and specifications for an intercepting sewer system and sewage disposal plant.

DELAWARE, OHIO.—The Riggs — Sherman Co. has been engaged to prepare plans and specifications for a sewage disposal plant.

SHELBYVILLE, IND.—Bids will be received by the Common Council until 6 p. m., Dec. 20, for the construction of a sanitary sewer system. L. E. Webb, Cy. Clk.

EVANSVILLE, IND.—Bids will be received by the Board of Public Works until 10 a. m., Dec. 10 for the construction of a local sewer in Read St., south 498 ft., thence west through an alley in block 12, Kazars Subdivision, 300 ft. to an alley, thence north and south through said alley to Maryland and Columbia St.; also, from Read St. east through an alley in blocks 11 and 10; also a local sewer in and along an alley between Illinois and Franklin Sts., from Governor St. to Rowley St.

SOUTH BEND, IND.—Bids will be received until Dec. 13 by the Dept. of Pub. Works for the installation of sewers in Olive St. and Howard Ave.

CADILLAC, MICH.—R. E. Elsner, City Hall, Cadillac, is taking figures on a sewer Disposal Plant, including the following materials, 2,000 ft., 24-in.. double strength iron water mains, check valves, gate valves, and low pressure piping.

DETROIT, MICH.—The Common Council of Detroit, awarded the following contracts on Tuesday Nov. 29, for the construction of lateral sewers: EMIL CLEARHOUT, THOS. G. WHITTAKER, WM. PORATH, JOHN S. AFFELD.

The Common Council received the following bids for Trumbull Ave.: Public sewer, William Porath, $7,659.50; Julius Porath, $7,922; J. S. Affeld, $7,721; Langley & Jeynes $8,291. WM. PORATH was awarded the contract.

CHICAGO, ILL.—Bids will be received by the Board of Local Improvements, 302 City Hall, until 11 a. m., Dec. 12, for constructing brick and tile pipe sewer in various streets. Plans at office of Bd. Albert F. Keeney is Pres.

PEKIN, ILL.—Bids received for the construction of the second and third district sewers are as follows: District No. 2, OTTAWA CONSTRUCTION CO., $30,809; Keys & McNamara, La Salle, Ill., $31,278; Newman Sewer Construction Co., Evansville, Ind., $32,027; Reed Bros., Belleville, Ill., $33,152; E. R. Harding Co., Racine, Wis., $34,742; Jansen & Zoeller, Pekin, Ill., $38,723; Johnsen & Thomsen Racine, Wis., $38,843. The engineers estimate was $39,904. District No. 3, Keys & McNamara, $60,931; OTTAWA CONSTRUCTION CO., Ottawa, Ill., $60,953; E. R. Harding, Racine, Ill., $69,543; Reed Bros., Belleville, Ill., $70,715; Johnsen & Thomsen, Racine, Wis., $80,779; Jansen & Zoeller, Pekin, Ill., $83,980. The engineers estimate was $84,191. The contract for both districts have been awarded to the OTTAWA CONSTRUCTION CO.

GALESBURG, ILL.—The construction of a trunk sewer is under consideration. George Sanderson is Mayor.

RICE LAKE, WIS.—The City Council has decided to sell $17,650, 6 per cent. bonds for sewer improvements. These bonds will be sold on Dec. 13.

CORYDON, IOWA.—See item under Water Supply—Irrigation.

FORT LEAVENWORTH, KAN.—See item under Streets and Roads.

HEBRON, NEB.—Bids will be received by the City Council until 7 p. m., Dec. 12, for the furnishing of material and the installation of lateral sewers for Sanitary Sewer Dist. No. 1. Also for the material and installation of a main and outlet sewer. C. H. Meeker, McCook, Neb., is Engr.

WATERTOWN, S. DAK.—The contract has been awarded to E. T. WEBSTER, St. Paul, for the construction of the sewer in this place. Other bidders were the Pastorat-Lawrence Co., Duluth, Minn., $20,249; Hess & Rau, Watertown, $21,879.

PLATTSBURG, MO.—See item under Water-Supply—Irrigation.

PORTLAND, ARK.—See item under Water-Supply—Irrigation.

FORDYCE, ARK.—Bids will be received by the Board of Commissioners of Sewer Dist. No. 1 until Jan 2, for the construction of approximately six miles of sanitary sewers, mainly 8-in., including two septic tanks. Plans and specifications can be obtained from the Engineer, Wm. J. Parkes, 107½ Main St., Pine Bluff, Ark.

PORTLAND, ORE.—The contract has been awarded to the BARBER ASPHALT CO. for the proposed sewers in the northeast and southwest quarters. The sections are east of East 39th St. and between East Halsey and East Stark Sts. The estimated cost is about $40,000.

OAKLAND, CAL.—Bids received by the City Council for the construction of sewers were as follows: in Foothill boulevard at Fortieth Ave.: Esterly Construction Company, John Heafy, and the Piedmont Construction Co. Bridge and Hyde Sts. improvement: A. Kopperud, Cotton Bros., and the Oakland Paving Co.

OAKLAND, CAL.—The contract has been awarded by the Board of Public Works to F. E. NELSON, 3090 King St., Berkeley, Cal., for the construction of culverts and conduits in Hopkins St., between 35th Ave. and Wilson St. J. W. Nelson is Secy.

RIVERSIDE, CAL.—The City Council has ordered the construction of a lateral sewer, with "Y" branches and manholes, flush tanks, etc., in Denton St. W. B. Darling is Supt. of Streets.

ANAHEIM, CAL.—The City Trustees have approved the plans of City Engineer Stewart for the proposed sewer system. The estimated cost is $90,000.

WINTERS, CAL.—The construction of a sewer system is under consideration. A petition will be presented to the Board of Trustees to call an election whereby the town may be bonded at $17,256.

TORONTO, ONT.—Bids will be received by G. R. Geary, Chn. Board of Control, until Dec. 13, for the supply of 303 ft. of riveted steel pipe, 60-in. in diameter, for outfall sewer. Plans and specifications at Main Drainage Dept.

GARBAGE DISPOSAL.

(*Denotes that this work is advertised in Engineering News.)

NEW YORK, N. Y.—Bids will be received until 3 p. m., Dec. 15, by the Park Board, Dept. of Parks, for furnishing and delivering two 2-horse street sweepers for parks, Boro. The Bronx.

GUTTENBURG, N. J.—Bids will be received until 8 p. m., Dec. 19, by the Council Board for the removal of all household refuse, garbage, paper and ashes. Emil Notacker is Town Clk.

ATLANTA, GA.—Bids will be received until Dec. 16 by the Board of Health for handling and disposing of garbage, ashes and refuse. John Jentzen is Ch. Sanitary Dept.

KANSAS CITY, MO.—The City will have plans prepared for the construction of three garbage plants.

TEMPLE, TEX.—The city is considering the construction of a garbage crematory.

EVERETT, WASH.—Bids for the repair of the garbage dump, including new gridiron and the construction of hoppers, have been opened. The contract has been let to the EVERETT CONSTRUCTION CO.

SANTA CRUZ, CAL.—Bids will be received soon by the City Council for the construction of a municipal incinerating plant in De Laveaga Park. Plans prepared by the City Engineer call for a large furnace and dump, a 20-ft. chimney and a 150-ft. flume.

SAN FRANCISCO, CAL.—The Board of Public Works has awarded the contract for the construction of two garbage incinerators to the DESTRUCTOR CO., 111 Broadway, New York, at $255,216, for both the buildings. The next lowest bid was $300,000, submitted by the McDonald Engineering Co. The Destructor Co., guaranteed that the city would make a net profit over and above all expenses of operation of the incinerators of $23,400 a year, this being the surplus value of the steam power which it would have at its disposal whereas the corresponding guarantee of the McDonald Engineering Co., was $14,800. The city will not sell the power, however, the purpose of the Board of Public Works and the Bureau of Engineering being that it shall be used for the operation of the city asphalt plant, the water front running stations and to supply any other municipal need that it may conveniently serve. Marsden Manson is City Engr.

ALAMEDA, CAL.—The Board of Health has made formal recommendation to the City Council that a garbage crematory be established in this city.

STREETS AND ROADS.

(*Denotes that this work is advertised in Engineering News.)

HARTFORD, CONN.—Bids for state road work will be received at the office of the State Highway Commissioner, Capitol, until 2 p. m., Dec. 13, as follows:

Town of Portland, 2,200 lin. ft. grading on the Portland-East Hampton Turnpike. This is a heavy rock-cutting job, involving work at what is known as "Aunt Filey's Crossing." Plans and specifications are with H. E. Ellsworth, First Selectman, Portland.

Town of Norwich, 2,250 lin. ft. of grading on the Scotland Road. Heavy grading and rock cutting is involved in this work. Plans and specifications are with A. W. Lillibridge, First Selectman, Norwich.

City of Waterbury, 13,268 lin. ft. of graded or gravel road, on the Waterbury-Meriden Turnpike. Considerable grading will be necessitated on this work. Plans and specifications are with R. A. Cairns, City Engr., Waterbury.

Plans are also in course of preparation for the following work: Town of Hampden, 15,245 lin. ft. of macadam road; Town of New Fairfield, 4,160 lin. ft. of grading; Town of Monroe, 7,300 lin. ft. of grading; Town of Windham, 8,515 lin. ft. of gravel road; Town of Sterling, 15,252 lin. ft. of grading.

WATERBURY, CONN.—The Board of Public Works, has voted to reject all bids recently received for the construction of the "West Road" at the Morris Dam on account of the delay in securing the right to build the road from the Town of Morris. New bids will be asked for later. R. A. Cairns, is City Engr.

NEW YORK, N. Y.—Bids will be received until 3 p. m., Dec. 12, by C. B. J. Snyder, Supt. Bldgs., Dept. of Education, for grading, constructing fences, drains, etc., at Public School No. 136, Fourth Ave., 40th and 41st Sts., Boro. of Brooklyn.

Bids are asked by George McAneny, Pres. Boro. of Manhattan, until 2 p. m., Dec. 15, for constructing cement sidewalk on the south side of 42d St., from a point 474 ft. west of Fifth Ave., to Sixth Ave.

NEW YORK, N. Y.—Bids will be received by R. Waldo, Comr., Fire Dept., until 10.30 a. m., Dec. 14, for furnishing all the labor and materials required for repairs to the asphalt at various quarters of engine and hook and ladder companies in the Boros. of Manhattan and The Bronx.

Bids are asked until 3 p. m., Dec. 15, by the Department of Parks, for paving with asphalt block the roadway of Transverse Road No. 2, crossing Central Park, from 79th St. on the east to 81st St. on the west. Charles B. Stover, is Pres.

NEW YORK, N. Y.—Bids are asked until 11 a. m., Dec. 21, by Alfred E. Steers, Pres., Boro. of Brooklyn, for regulating, curbing and paving with asphalt on a concrete foundation the roadway of various streets; also for laying sidewalks, etc.

SAG HARBOR (L. I.), N. Y.—The automobile road in Sag Harbor, a part of the 25-mile triangle in Southampton town, is soon to be widened 5 ft. by doing away with the embanked bicycle path, it is stated. The Board of Trade may be addressed.

SCOTT, N. Y.—Plans for the extension of the state road, Scott, north of the village of Scott and to the county line, and the Blodgett Mills road on the east side of the Tioughnio River, have been approved by Dwight B. Coleman, County Supt. of Highways. It is expected that these two roads will be included in the December letting by the State Highway Commission and built next year.

SYRACUSE, N. Y.—The following bids have been received by the Board of Contract and Supply for paving, etc.: For paving Concord Pl., from Westcott to Allen Sts., using stone curb—John Young, macadam, $7,140; Hassam Paving Co., chemical concrete, $8,22; Warner-Quinlan Asphalt Co., patent pavement, $9,687; Trinidad Asphalt Paving Co., asphalt, $9,406; J. F. J. Baker, Jamestown block, $9,630; Trinidad Asphalt Paving Co., asphalt, $9,518; Central City Paving Co., Jamestown block, $9,475, Trinidad asphalt, $9,250, macadam, $8,210; C. T. Hookway, bitumen macadam, $6,827. same pavement with concrete curb—John Young, macadam, $6,508; Hassam chemical concrete, $7,547; Central City Paving Co., Jamestown block, $9,495; Trinidad asphalt, $9,292, macadam, $8,354; C. T. Hookway, bitumen macadam, $6,448.

For grading Thomas Ave., from Manlius St. to Kline St.—Ernest Woods, $3,895; A. Gaffey, $4,537; A. Sposato, $5,305.

JERSEY CITY, N. J.—Bids will be received by the Board of Street and Water Commissioners until 2 p. m., Dec. 12, in the Assembly Chamber of the City Hall, for the improvement of St. Paul's Ave., from Germania Ave. to Summit Ave. George T. Bouton is Clk.

NEWARK, N. J.—The contract for grading, curbing and flagging Carlisle Pl. and Clay St., has been awarded by the Board of Street and Water Commissioners, to VAN KEUREN & SON, of Harrison, N. J., at $5,040.

Bids will be received by the Board of Street and Water Commissioners until Dec. 15, for grading, curbing and flagging Fourth Ave. from Fifth St. to Roseville Ave., and South 13th St., between Avon Ave. and Woodland Ave. M. R. Sherrerd is Ch. Engr.

ALLENTOWN, PA.—The County Commissioners have awarded the contract for the construction of the south sidewalk on the Hamilton St. bridge between the depots to R. [illegible] and C. D. STEWART, of Easton, at $19,750.

PHILADELPHIA, PA.—A boulevard, 100 ft. wide, is contemplated in the 21st Ward, of which William F. Dixon, is Pres. This proposed boulevard extends for a distance of about five miles from Henry St. near to the Queen Lane filtration plant, to the Montgomery County line at Manatawny. John J. Foran, is Chn. of the Improvement Com.

NORFOLK, VA.—The contract for paving and curbing a part of Stockley Gardens, Baldwin Pl. and Shirley Ave., has been awarded to L. LOUIS LAWSON, at $4,630. There are 2,200 sq. yds. of paving and 2,000 ft. of curb the contractor to furnish the material, asphalt block, for the former, but the city for the curbing.

PENNINGTON GAP, VA.—A bond issue for road improvements in Lee County, was carried at a recent election. Estimated cost, $364,000.

NEW ORLEANS, LA.—The Finance Committee of the Council Monday, on recommendation of W. J. Hardee, City Engr., recently approved the following bids for paving and subsurface drainage:

The Standard Paving Co., for paving with asphalt Rendon St. from Dumaine to DeSota, at $13,004, and the same company for subsurface of the same street, $6,234.

The Barber Co. for the subsurface drainage on Octavia St., from Freret to Robertson, at $4,247, and the same company for paving the same street at $2,449.

For paving with asphalt, Claiborne Ave., lake side, from Esplanade Ave., to Elysian Fields Ave., at $44,268, and for subsurface work on the same avenue by the same company, at $15,543.

The following were the bidders for the paving with asphalt and subsurface drainage on Carondelet street, from Jackson to Philip streets: The Standard Co., Bancroft & Ross and the Barber Co. For paving Elm St. from Adams to Carrolton Ave., with bitulithic: Bancroft & Ross, the Barber Co., the Southern Bitulithic Co., and the Standard Co. The bids were referred to Mr. Hardee for compilation and report.

NASHVILLE, TENN.—The "Memphis-to-Bristol Highway Commission" is being organized for the purpose of constructing a highway across the state of Tennessee. The following officers have been elected: W. M. Casetty, Pres.; A. W. Willis, Vice-Pres.; George A. Gowan, Secy-Treas.; Hamilton Parks, Attorney.

CANTON, OHIO.—The contract for grading the Business Men's Association and the Board of Trade Booster addition, has been awarded to JOHN SKEELES, at 20 cts. a cu. yd. Estimated cost, $20,000.

CLEVELAND, OHIO.—The contract for grading Granger Road in South Newburg Township, has been awarded to BOMANO BROS., 8006 New York Ave., S. E., Cleveland. Bids were received on Nov. 26, by John F. Goldenbogen, Clk. Bd. of County Comrs.

LISBON, OHIO.—We are officially advised that the contracts for furnishing the labor and material necessary to grade the East Liverpool and Lisbon Road, has been awarded to W. D. HAMMOND, of Jacobsburg, Ohio, at 29½ cts. per cu. yd. Bids were received on Nov. 30, by C. H. Coburn, County Audr.

GREENVILLE, OHIO.—Bids will be received at the office of the County Commissioners of Darke County, until noon, Dec. 14, for grading and macadamizing 1.5 miles of road in Neave and Van Buron townships, said county, under the provisions of the State Highway Law. Estimated cost, $9,358.

WOODSFIELD, OHIO.—Bids will be received at the office of the Commissioners of Monroe County, until 10 a. m., Dec. 20, for grading and macadamizing one mile of road in Canton Township, said county, under the provisions of the state highway law. Estimated cost, $8,375. James C. Wonders, of Columbus, is State Highway Comr.

MONTPELIER, OHIO.—Extensive street improvements are planned here, we are officially advised. The Riggs & Sherman Co., The Nasby, Toledo, are the Engrs.

FORT WAYNE, IND.—The Commissioners of Allen County will receive bids until 10 a. m., Dec. 21, for the construction of a macadamized road in Maumee Township. G. W. Lindemuth is County Audr.

LEBANON, IND.—The contract for paving the roadway of North Lebanon St., bids which were received on Nov. 14, was awarded to GEORGE T. MILLER, of Lebanon, at $6,234, on Nov. 28. Edmund Connor, is City Clk.

TERRA HAUTE, IND.—The Commissioners of Vigo County received bids on Nov. 30, for the construction of the Koonce gravel road, in Fayette Township, said road to be 2,855 ft. in length. The contract was awarded to GEORGE FUQUA, of Vermillion, Ill. N. G. Wallace, is County Audr.

WINAMAC, IND. — The plans to build a county line gravel road between four counties have been set aside. The law dues not permit more than two counties to join in the construction of a gravel road. The plan is now to build a gravel road on the line between Pulaski and Starke and another on the line between Fulton and Marshall counties. Bids will be asked for soon.

CROOKSTON, MINN.—J. E. Carroll, City Engr., has been instructed to prepare plans and specifications for paving with Westrumite. Bids will be received as soon as arrangements can be made. A. M. Childs is City Clk. The estimated cost is between $50,000 and $75,000.

DULUTH, MINN. — An automobile road through the northern part of the state, along Lake Superior to Port Arthur, Ont., is contemplated. Thomas F. McGilvray is City Engr. and O. G. Olson, Supt. Paving of Duluth.

FORT LEAVENWORTH, KAN.—Bids will be received by Capt. J. E. Normoyle, Q. M., U. S. A., until 11 a. m., Dec. 22, for constructing roads, walks, etc., and sewers and water connections to buildings Nos. 328, 329 and 331, at Fort Leavenworth.

DALLAS, TEX.—The contract for paving Haskell Ave., from Ross to Pacific Sts., has been awarded by the Board of Municipal Commissioners, to the TEXAS BITULITHIC CO. It is to be of bitulithic, upon a 5-in. gravel concrete base, and is to be laid at the cost of $2.30 a sq. yd., with five-year maintenance. Other bids were as follows: Stevens Construction Co., brick, $2.60, rock asphalt $2.10, asphaltic concrete $2.15; Texas Bitulithic Co., brick, $2.75, for bitulithic on a bituminous base, $2.30.

EL PASO, TEX.—The bid of the TEXAS BITULITHIC CO., for paving West Missouri St., from Oregon to Fisher Sts., was accepted by the City Council at a recent meeting. The engineer's estimate is $13,831.

BROWNWOOD, TEX.—The additional bond issue for the completion of the public roads in precinct No. 1 carried by a large majority, and bonds to the amount of $50,000 have been authorized and will be offered for sale as soon as the proper orders have been issued by the Commissioners' court. Last year the property owners of precinct No. 1 voted a $100,000 bond issue for the purpose of building permanent roads throughout the district. Contract was made with the J. W. MAXCEY CO., of Houston, to do the surveying and superintend the work, which has been in progress for almost a year. It was found after a survey was made that there was something like 85 miles of road to be graded and graveled. This number of miles have been practically all graded, but the fnuds on hand would not complete the graveling and an additional bond issue was agitated. Such an issue at once became popular and in spite of some opposition was put to a vote and was carried by a big majority. It is believed that the $50,000 thus raised will complete the roads to the precinct lines and will give Brownwood the best system of public roads in the state.

ABERDEEN, WASH.—The City Council has awarded the contract for the paving of Broadway from Wish Kah St. to First St., to the BARBER ASPHALT PAVING CO., at $13,670.

EVERETT, WASH.—The Board of Public Works has awarded the contract for improving Hoyt Ave., from California to 21st Sts., to the ATLAS CONSTRUCTION CO.

NORTH YAKIMA, WASH.—The laying of asphalt to the amount of 36,000 sq. yds. and 1,500 sq. yds. of brick in what is known as the West Yakima improvement, 2½ miles of paving in all, is provided for by the approval of the plans and specifications of the City Engineer, by the City Council. The improvements include the west end of Yakima Ave., and several cross streets and will cost about $125,000. The contract for the work will be let early in January, in order that all the preliminary work may be done before the opening of spring.

SPOKANE, WASH.—The paving of Washington St., from the river to Waverly Pl., is proposed. The distance is approximately two miles. J. C. Argall, is Secy., Bd. of Pub. Wks.

SEATTLE, WASH.—Bids will be received by C. B. Bagley, Secy., Bd. of Pub. Wks., of Seattle, until 10 a. m., Dec. 9, for the improvement of west side of Western Ave., from University St., to Virginia St., by planking and replanking according to plans filed in the office of the Board of Public Works.

PORTLAND, ORE.—The following lowest bids have been received for street work: East 27th St., the Warren Construction Co., at $139,364:

Union Ave., from East Salmon to Belmont park, embankment and macadam improvement; the Pacific Bridge Co., $12,489.

Park Side Drive: bitulithic pavements, Warren Construction Co., $5,489.

Skidmore St. from Maryland Ave. to Court Ave.; bitulithic pavement; the Warren Construction Co., $13,831.

East 25th St. district improvement: hassam pavement; Oregon Hassam Paving Co., $10,498.

Emerson St. from Kerby St. to Patton Ave., hassam pavement; Oregon Hassam Paving Co., $24,484.

Constance St. from Union Ave. to East 17th St.; bitulithic pavement; the Warren Construction Co., $5,797.

East 40th St. from East Taylor to Hawthorne Ave., hassam pavement, the Oregon Hassam Paving Co., $7,001.

Klickitat St. from East 7th St. to Union Ave., asphalt pavement, Elwood Wiles, $6,012.

Macleay boulevard, King's Heights; embankment and concrete retaining walls. Bids totaling $72,000 submitted by the Portland Concrete Pile & Equipment Co., with request by property owners that contract be awarded.

Maywood Drive; concrete walls and earth embankment; the J. W. Sweeney Construction Co., $39,792.

FRESNO, CAL.—It is planned to pave Fresno St., from the Subway to Kearney Ave. George L. Hoxie, is City Engr.

KING CITY, CAL.—The contract for constructing road No. 232 in Bradley and San Ardo districts, together with all bridges, culverts and drain pipes, thereon, has been awarded to MORIARITY & PERKINS, at $9,766.

LOS ANGELES, CAL.—The following contracts have been awarded by the Board of Public Works: For improving Hoover St., FAIRCHILD-GILMORE-WILTON CO., at $13,441; for improving Bellevue Ave., from Bonnie Brae to Belmont Sts., to T. H. McGOWAN, at $5,283. Noted last week.

PASADENA, CAL.—CHARLES A. BALDWIN has been awarded the contract at $4,470, for asphalt paving on Delacy St., between Union and Green Sts. The Fairchild-Gilmore-Wilton Co., bid $4,844.

POMONA, CAL.—The City Board of Trustees has instructed T. R. Trotter, City Clk., to advertise for bids for paving Second St.

JEROME, ARIZ.—The rebuilding of the wagon road from here to Prescott is soon to be undertaken. Arthur W. Whittaker, of Jerome, is interested.

TORONTO, ONT.—The construction of paving on the following streets has been recommended by C. H. Rust, City Engr.: asphalt on Edwin Ave., from Ruskin Ave. to north end, $11,269; bitulithic on Bellwood Ave., from Arthur to Mansfield, $7,161 and for Indian Road, from Bonstead to Bloor, $8,765.

BURNABY, B. C. — The following bids for laying sidewalks on the following roads have been accepted: J. H. HARDING, North Road, Hamilton Road, Douglas Road from city limits to Lakeview school; Cumberland Road, Third Ave. and Sixth St., city limits to Edmonds; Royal Oak Road, Vancouver Road, from Boundary road to Murchie Road; Guichon Road, Moscrop Road, Mara Road, Tenth Ave., Booth Road, at $2.64 per chain for 4 ft. and $1.32 for 3 ft walks. CEDERBERG & CAMPBELL: Cameron Road, at $1.54 per chain. F. LUGSDIN: Edmonds Road, Wise Road and Vancouver Road, from Edmonds to city limits, at $2.47½ per chain for 4 ft. and 99 cts. for 3 ft. J. DAVIS: Keefer road, Smith Road and Gray Road, at $1.18½ per chain and $2.64 per chain. W. P. BLACK: Barnet Road, at $2.80 per chain.

CALGARY, ALTA.—The city engineer has prepared the estimates of the cost of paving Ninth Ave., from Third St. west to the river, and also the relative portions of the cost to be borne by the Canadian Pacific Ry. and the city, if the agreement, as framed, is adhered to. The cost to the city is estimated at $98,770 and to the Canadian Pacific Ry., $47,640. Total, $146,410.

MANUFACTURING PLANTS.

(Denotes that this work is advertised in Engineering News.)*

NEPONSET (Boston post-office), MASS.—The George Lawley & Son Corporation, First St., Boston, yacht builders, plans to build a yacht building plant at Neponset. The company employs about 400 men.

LOWELL, MASS.—The Locks & Canals Co. is purchasing eight acres of land supposedly for a syndicate for the purpose of building a textile mill.

MALDEN, MASS.—The Holmes Knitting Co., will shortly erect a 3-story building for the manufacture of underwear. L. D. Marsh is Treas.

NEW BEDFORD, MASS.—It is reported that the Beacon Mfg. Co. is considering the erection of a mill next spring, with a capacity which will enable the concern to practically double its present output. The company manufactures blankets and napped goods.

WESTFIELD, MASS.—The Westfield Foundry & Valve Co. will shortly erect a plant for the manufacture of valves. A machine shop will be built later on. C. O. Churchill, Supt. of the Georgian Mfg. Co., Binghamton, N. Y., is Pres.

NEW YORK, N. Y.—Hardman, Peck & Co., piano manufacturers, 138 Fifth Ave., have leased from the Dordan & Butler Realty Co., for a term of 21 years, the property 524 to 544 West 52d St., a 6-story factory, on a plot 200 × 100 ft., together with a 25-ft. driveway extending through to 531 West 51st St. The properties at 546, adjoining on the west, and 539 West 51st St., abutting, are also included in the deal and will be incorporated in the new Hardman factory. The aggregate rental of the combined plot is approximately $450,000. The building will be renovated by the JOHN T. BRADY CONSTRUCTION CO., 170 Flushing Ave., Brooklyn.

Bids will be received about Dec. 31 for the construction of a factory, for Shapiro & Aronson, manufacturers of gas and electric fixtures, 24 Morton St., Brooklyn. It will be a 5-story and basement structure of reinforced concrete and 100 × 100 ft. Frederick A. Waldron, 37 Wall St., New York, is Arch. and Engr. The estimated cost of the building is $80,000 and equipment $20,000.

BUFFALO, N. Y.—The Crosby Co., William H. Crosby, Pres., 183 Pratt St., has let the following contracts for brick and steel warehouse and a metal pickling building, 77 × 125 ft., on Spring St., near William St.: Masonry to GEORGE SCHAFF & SONS, 547 East Utica St.; steel work to the BUFFALO STRUCTURAL STEEL CO. Robert J. Reidpath & Son, Builders Exchange, are the Archs.

DUNKIRK, N. Y. — The American Locomotive Co., has completed plans for a concrete, brick and structural steel addition to the former boiler shop building, which is to be remodeled and used with the new addition as part of the machinery department, the boiler department having been removed to new buildings recently completed.

ROCHESTER, N. Y.—Joseph H. Oberlies, Arch., Granite Bldg., is preparing plans for a show case factory, 122 × 318 ft., one story high, of brick, to be erected on Lyall Ave., by the J. W. Storandt Mfg. Co., 322 St. Paul St.

SYRACUSE, N. Y.—The Building Inspector has granted a permit to the Syracuse Malleable Iron Works, for a foundry, to cost $25,000 on North Geddes St. The SYRACUSE BRIDGE CO., Syracuse Savings Bank Bldg., has the contract for steel work; DAWSON BROS., masonry; CHARLES SMITH, carpentry. The building will be 150 × 200 ft.

YONKERS, N. Y.—A permit has been granted to the Alexander Smith & Sons Carpet Co., for a brick addition to be erected to its spinning mill, at Neperhan and Lake Aves.

BAYONNE, N. J.—The Wasson-Piston Ring Co., with an authorized capital aggregating $35,000, plans to erect a plant in Bayonne. Robert B. Wasson, of Cranford, is one of the incorporators.

CONSTABLE HOOK (Bayonne post-office), N. J.—We are officially advised that the TURNER CONSTRUCTION CO., 11 Broadway, New York, has been awarded the general contract for the reinforced concrete buildings at the Constable Hook plant of the Standard Oil Co. Work is to be undertaken at once. The buildings are a case and can factory, 300 × 153.4 ft., two stories high, with a monitor, covering an area of about 75 × 195 ft.; two naptha canning buildings, 18 × 20 ft., and 27 ft high, with a concrete fire wall and wood floor for inspection room; also for moving the present cook house which is 54.6 × 22 ft., one story, on to a new foundation constructed by the owners.

BRIDGETON, N. J.—The Hess Steel Co. plans the erection of a plant in Bridgeton, and has contracted with JOSEPH STEELMAN for the construction of the first buildings.

JERSEY CITY, N. J.—Fred. Dana Rhodes, Consult. Engr., 140 Cedar St., New York, has completed plans for an addition to be erected to the plant of the George Strafford Oakum Co., on Cornelison Ave., Jersey City. The proposed building will be of brick, steel and reinforced concrete construction, three stories in height and 100 × 35 ft. The cost will be about $35,000.

PERTH AMBOY, N. J.—It is announced that the Barber Asphalt Paving Co., of this city has closed a contract for the purchase of a large tract of land in the extreme northern end of Perth Amboy, bordering on the Woodbridge Creek, upon which will be erected an asphalt oil refinery to cost about $10,000,000, giving employment to 1,500 more men in addition to the present force, making a total of nearly 3,000.

READING, PA.—Adam P. Spatz, of the Franklin Brass & Foundry Co., has been granted a permit for a foundry building to be erected on the north side of Schuylkill Ave., at River road. The structure will be one story high of brick, with a slag roof, 72.4 × 47.4 ft. When completed, the industry will be transferred there from Eighth and Chestnut Sts., the site of the old Johnston foundry, which will be devoted to the erection of houses.

ALTOONA, PA.—Owing to a big demand for all-steel equipment the Pennsylvania R. R. Co., has authorized the addition to its plant at Altoona of another shop building, which will double the present capacity. It will be 540 ft. long and of corrugated galvanized steel frame, with slate roof. H. R. Leonard, of Philadelphia, is Engr. of Bridges and Buildings.

ADELAIDE, PA.—About 52 acres of land have been purchased and preparations for the erection of a plant for the treatment of railroad ties with creosote are under way. It is stated that the Pittsburg & Lake Erie Co. is back of the movement. J. A. Atwood, of Pittsburg, is Ch. Engr.

LANCASTER, PA.. — We are officially advised that the general contract to erect a bakery here, for Christian Geinsenhauser, has been awarded to HERMAN WOHLSEN, of Lancaster. A heating and refrigerating plant is required. It will be a fireproof structure, of marble and brick, on a plot, 80 × 147 ft. Charles Balderston, 411 Walnut St., Philadelphia, is the Arch. Estimated cost, $50,000.

NEW CASTLE, PA.—Ten hot mills are to be added to the 30 hot mills in the Shenango Tin Plant, of this city, it is stated. The machinery of the tin plant to be dismantled at Niles, Ohio, will be brought here. About 1,200 men will be employed in New Castle.

PHILADELPHIA, PA.—The contract to erect two buildings of mill construction, for the National Ammonia Co., has been awarded to the PHILIP HAIBACH CONTRACTING CO., 26th and Thompson Sts. Peuckert & Wunder, 310 Chestnut St., are Engrs. and Archs. Estimated cost, $10,000.

PITTSBURG, PA.—The general contract to erect a 3-story brick and fireproof shop building for the Philadelphia Co., on Shakespeare St., has been awarded to H. L. KREUSLER, 3301 Penn Ave. Cost $25,000.

The Pittsburg Emery Wheel Co., Park Bldg., manufacturers of emery wheels and grinding machinery, plans to more than double the present capacity of its plant, according to reports.

EAST PITTSBURG, PA.—Plans are being prepared by the engineering department of the Westinghouse Electric & Mfg. Co., 307 Fifth St., for the construction of a 5-story building, which will be erected southeast of the printing plant at East Pittsburg. The report is that it will be used for the manufacture of automobile equipment. The proposed building, it is said, will house the operations for the manufacture of electric machines and storage batteries.

BALTIMORE, MD.—Joseph Kavanaugh & Co. will erect a coppersmith shop at Pratt St. and Central Ave. STEIN BROS., 10 North Ann St., have been awarded the contract. Acording to the plans, the proposed building will be two stories high with a large basement. It will have a frontage of 20 ft. and a depth of 60 ft. and will be of brick and stone construction. The work will begin immediately.

SOUTH BALTIMORE, MD.—An overall factory will be erected here for George N. Crosland, 222 Calvert St., Baltimore. It will be built on Stockholm St. The proposed plant, which will cost $40,000, for construction alone, is to be two stories high, of brick and stone, with reinforced concrete foundation and slag roof. It will have a frontage of 40 ft. and a depth of 80 ft. The drawings are now being prepared by J. C. Simpson, Arch., Equitable Bldg., Baltimore. Contractors will shortly be asked to submit bids for its erection.

FAIRFIELD, MD.—The Impervious Product Co. of Fairfield, is having plans made by F. E. Beall, Arch., 213 St. Paul St., Baltimore, for an asphalt plant to be erected at Fairfield, Anne Arundel County. The plant will consist of two fireproof buildings. The dimensions of the larger will be 61 × 130 ft. Concrete and steel will be used.

OAKLAND, MD.—The Oakland Dairy Association, of Oakland, has awarded a contract to the HASTINGS INDUSTRIAL CO., of Chicago, for the erection of a creamery building. The proposed structure will be of brick and concrete, and will measure 32 × 40 ft.

NORFOLK, VA.—The plant of the Wiltz Veneering Co., which was recently destroyed by fire, will be rebuilt on a larger scale. John F. Wiltz is Gen. Mgr.

HUNTINGTON, W. VA.—The Swan Printing Co. will expend about $20,000 on the erection and equipment of a plant, 30 × 200 ft., fireproof, of reinforced concrete construction. Bids on printing machinery are being received. Frank P. Swan is Pres.

NEW MARTINSVILLE, W. VA.—The plant of the New Martinsville Glass Co., which was destroyed by fire on Dec. 1, will be rebuilt at once, it is stated.

PARKERSBURG, W. VA.—The Stile Bros. foundry will be increased in capacity to take care of the manufacture of the Heber Self Joint tightener, the patent which they have purchased.

SISTERSVILLE, W. VA.—The Sistersville Boiler Works, capitalized at $25,000, has taken over the holdings of the boilerworks conducted by E. A. Ryan. Extensive improvements will be made to the factory.

WAYNE, W. VA.—A clay-products factory will shortly be erected by Sam V. Crum, to manufacture fire clay products. The plant is to be in operation by next summer. Bids on machinery will shortly be received.

WHEELING, W. VA.—The Wheeling Traction Co., has purchased a considerable tract of land adjoining its barns on Huron St., this city, and will erect and equip a car barn which will double the car storage capacity. George O. Nagle, of Wheeling, is Gen. Mgr. Estimated cost, $40,000.

CHARLESTON, S. C.—The Wilburn Fertilizer Co., of Charleston, will build a plant with an initial annual capacity of from 15,000 to 20,000 tons. The approximate cost is $100,000.

ROCKHILLS, S. C.—The Arcade Cotton Mills of Rock Hills has awarded all contracts for their enlargement. The company awarded the machinery contracts to the FALES & JENKS MACHINE CO. and the POTTER & JOHNSTON MACHINE CO., of Pawtucket, R. I., the WOONSOCKET MACHINE AND PRESS CO., Woonsocket, R. I., and the DRAPER CO., of Hopedale, Mass. Contracts for erecting the 50-ft. addition to the mill building was awarded to the GALLIVAN BUILDING CO., of Greenville. Electricity will be used for driving power and it will be obtained from the Rock Hill transmision lines of the Southern Power Co., of Charlotte, N. C. About 6,272 spindles and the necessary accompanying equipment will be installed. The company has at present about 12,100 ring spindles, 314 broad looms, etc., the output being hosiery yarn and converter goods. Noted on Nov. 3.

WHITESBURG, KY.—The Consolidation Coal Co., which recently acquired 100,000 acres of coking coal lands in Eastern Kentucky, plans to erect a coal coking plant.

COLUMBUS, OHIO.—Marriott & Allen, Archs., Clinton Bank Bldg., have awarded the contract for the construction of the plant for the Charles A. Moore Oil Co., except foundation, to J. W. HECKERT, of this city. Noted Nov. 17.

LATHROP, OHIO.—The Black Diamond Coal & Coke Co. announces that it will immediately rebuild its plant which was destroyed by fire recently. The new plant will be much larger in size than the old and more extensive equipment will be used. The fire loss amounted to $50,000. H. L. Gilbert is Gen. Mgr.

TOLEDO, OHIO.—The contract to erect a coffee roasting plant on Summit St., for the Woolson Spice Co., has been awarded to the A. BENTLEY & SONS CO., 37 North Huron St. The main building will be five stories high, 100 × 150 ft., and of reinforced concrete construction. The 2-story warehouse building whose dimensions are 150 × 225 ft., also will be built of reinforced concrete, and will have a storage capacity of 50,000 bags of green coffee. The contract calls for its completion by Nov 1, 1911. Cost, $350,000.

TOLEDO, OHIO.—The Gasser Coffee Co., 113 Ontario St., plans the erection of a plant at 13th and Lucas Sts. and Belmont Ave. The site is 100 × 200 × 100 ft. The proposed building will cover the entire lot and will be of reinforced concrete. It will contain five stories and basement, the latter having storage capacity for 20,000 bags of green coffee. On the Lucas St. side of the building, there will be a covered shipping platform about 14 ft. wide, and extending the full width of the building. Work will probably be started on the structure early next spring. M. H. Gasser is Pres. Estimated cost, $100,000.

ROSSFORD, OHIO.—The Ford Plate Glass Co., of this city, plans to triple the capacity of the present plant. Contracts for construction of one building will soon be awarded. The other 13 buildings to be erected are a power house, 70 × 164 ft.; a boiler house, 60 × 192 ft.; a plaster house, 150 × 180 ft., with storage shed attached, 40 × 160 ft.; a lehr house, 60 × 372 ft.; with an "L" 91 × 150 ft.; a furnace hall, 80 × 640 ft.; a mix house, 60 × 200 ft., and having an "L" 32 × 60 ft.; a pot house, 60 × 300 ft.; a wareroom, 192 × 180 ft.; a packing and shipping building, 88 × 100 ft.; a carpenter and box shop, 75 × 190 ft. a machine and blacksmith shop, 60 × 200 ft. All of the 13 plate storage room, 75 × 300 ft. All of the 13 new buildings are to be one story high except the pot house which will contain three stories and basement. They will be constructed of reinforced concrete and brick and steel with metal window sash, making the buildings fireproof. It is expected that by Sept. 1, 1911, the entire 14 structures, costing over $1,000,000, and covering 16 acres will be under roof. Edward Ford, is Pres.

TOLEDO, OHIO.—The Huebner-Toledo Breweries Co., Adams and Ontario Sts., plans to construct three buildings, next to the present brewery, a brew house, bottling plant and a refrigerating building. The cost is estimated at $300,000.

BREMEN, OHIO.—Plans are being prepared for the construction of a gasoline producing plant at Bremen, for the Bessemer Gas Engine Co., Keenan Bldg., Pittsburg, Pa. Estimated cost, $75,000.

CRAWFORDSVILLE, IND.—The Crawfordsville Wire & Nail Co. has ordered plans, on which it will soon ask for bids for the erection of a building, into which it will install the tank works recently purchased.

GARY, IND.—We are officially advised that the HANNA ENGINEERING WORKS, 2059 Elston Ave., Chicago, Ill., have recently obtained an order from the American Bridge Co., for equipping its plant at Gary, with 24 Hanna Type Compression Yoke Riveters, ranging in size from 4-in. reach to 60-in. reach, and from 40 tons to 64 tons pressure on the die. With this installation, the American Bridge Co. will have in the neighborhood of 75 Hanna riveters in use. William L. Laib is Secy.

HUNTINGTON, IND.—Bids will be received about Dec. 10, by Orton & Steinbrenner, 1806 Borland Block, Chicago, Ill., for the construction of a plant for manufacturing cranes. It will be one story high, 80 × 160 ft., with a steel frame, brick sides and a wooden roof. The building is estimated to cost $14,000, and equipment $40,000.

INDIANAPOLIS, IND.—James J. Quinlin, of Muncie, is preparing to erect a factory to manufacture steam boilers, at Draper and Van Buren Sts. Bids will be received as soon as the City Council grants the right to lay a switch. Estimated cost, $30,000.

SOUTH BEND, IND.—The South Bend Mill & Timber Co., recently incorporated, will soon ask for bids for the erection of a planing mill and lumber sheds, on South Lafayette St. Jacob E. Kuntz is Pres.

MENOMINEE, MICH.—The Menominee River Sugar Co. will erect a beet pulp dry house, at a cost of $150,000.

MILWAUKEE, WIS.—Contracts have been awarded as follows on the building to be erected by the ANSON-ELDRED CO., at Broadway and Chicago St., at a cost of $85,000: NORTHERN CONSTRUCTION CO., masonry; RICHARD RIESEN, carpentry; W. H. HALSEY, plumbing. The building will be occupied by the Phoenix Knitting Co. Noted on Nov. 17.

MILWAUKEE, WIS.—The Webber Mfg. Co. has purchased a site on National Ave. upon which it will erect a planing mill and carpenter shop. The property has a frontage of 92 ft.

RACINE, WIS.—Walter G. Reynolds, of Muskegon, Mich., Pres. of the National Boat & Engine Co., recently incorporated with a capital of $10,000,000, has closed up the deal for the purchase of the Pierce Boat Co. and the old Racine Boat Mfg. Co. The new company will establish a plant in Racine, at a cost of $80,000.

TOPEKA, KAN.—See item under Buildings.

OMAHA, NEB.—The plant of the National Lumber, Box & Package Co., which was recently destroyed by fire, will be rebuilt. The site is at Tenth and Seward Sts. L. J. Nelson is Pres.

RAPID CITY, S. DAK.—The Rapid City Packing Co. has let the contract to the C. L. PERCIVAL CO., of Des Moines, Iowa, for tripling the capacity of the plant, including the installation of a refrigerating machine.

ALDINE, TEX.—The Aldine Fig & Preserving Co., with a capital of $135,000, has been incorporated and granted a charter, and ground will be broken immediately for a fig preserving, canning and pickle factory.

SAN BENITO, TEX.—A company has been organized to build an ice factory for this place. Contracts for machinery call for a 40-ton refrigerating machine, which, together with other machinery required, will cost $30,000, excluding buildings. The new plant will be located on a free site donated by the Commercial Club. W. H. Morrison, of New York; O. P. Perkins, of Magnolia, Tex., and J. V. Wright, of Hartford, Conn., are promoting the project. The plant is to be in operation by March.

Joseph Hitz, of Madison, Ind., and associates will immediately erect here a vegetable canning factory. About 200 hands will be employed.

OKLAHOMA CITY, OKLA.—The Oklahoma Cotton Oil Co., of Oklahoma City, will build a mill to replace the one recently burned, to cost $125,000.

BREMERTON, WASH.—Bids will be received until 11 a. m., Jan. 28, by R. C. Hollyday, Ch. of Bureau of Yards & Docks, Navy Dept., Washington, D. C., for the construction of a general foundry building at the navy yard, Bremerton.

SPOKANE, WASH.—The Patent Holding & Mfg. Co., Peyton Bldg., is preparing to build a brick factory, warehouse and salesroom on the north side of Second Ave., between McClellan and Browne Sts. The cost is estimated between $25,000 and $30,000.

MARSHFIELD, ORE.—At a meeting of the stockholders of the North Bend Milk Condensery, arrangements were made for doubling the capacity of the plant. J. H. Keating is Mgr.

MEDFORD, ORE.—The Pantorium Dye Works, of which F. O. Elliott is Mgr., will erect a new concrete building, to occupy the lot to the west of the present building. The building, present equipment and the new machinery to be installed, will cost $20,000 or more.

ARTESIA, CAL.—The Crescent Creamery Co., 241 Winston St., Los Angeles, has purchased the McKee Ranch, south of Artesia, and a cold storage plant will be installed. S. A. W. Carver is Pres.

OROVILLE, CAL.—Articles of incorporation were filed recently by the Western Aviation Co., with a capital stock of $75,000. The company proposes to manufacture and market aeroplanes according to a model invented by Obar Meyerhoffer, of this city. The incorporators of the company, all local people, are Obar Meyerhoffer, Lawrence Gardelia, C. E. Howard, former Sheriff J. M. Chubbuck and N. Schubner. The first aeroplane will be built in San Francisco.

SACRAMENTO, CAL.—Bids will be received some time in February for the construction of an automobile manufacturing plant. Seven buildings are included, one, two and three stories high, on a plot, 650 × 750 ft. The "A" Auto Mfg. Co., First National Bank Bldg., San Francisco, is the owner, of which T. F. Cooke is Treas. Charles C. Frye, 127 Montgomery St., San Francisco, is the Arch. The estimated cost of the building is $150,000, and equipment $150,000.

SAN DIEGO, CAL.—D. Howarth, 687 Harvard Boulevard, Los Angeles, and J. C. Marquardt are arranging for the erection of a cotton mill here, to cost $250,000. Train & Williams, Exchange Bldg., Los Angeles, are the Archs. The proposed buildings will be of reinforced concrete construction.

UPLAND, CAL.—The Brennan Tannery & Shoe Mfg. Co. has been incorporated here, with a capital stock of $100,000. The company will erect a tannery and shoe manufacturing plant in Upland. The directors are: J. W. Brennan, E. N. Dillman, J. A. Atwood, Charles Ruddy and J. L. Showalter.

BENSON, ARIZ.—It is reported from San Francisco that the Southern Pacific R. R. Co. is preparing plans for railway shops to be erected at Benson or Boise, to replace the shops recently burned in Tucson. W. Hood, of San Francisco, Cal., is Ch. Engr. Estimated cost, $200,000.

COEUR D'ALENE, IDAHO.—The Stack-Gibbs Lumber Co. has completed the arrangements to construct a sawmill of 100,000,000 ft. B. M. annual capacity on their mill site, opposite the Blackwell plant, at the mouth of the Spokane River, according to reports. Among the local capitalists interested in the plant is William Dollar, Pres. of the Exchange Bank.

LACROSSE, IDAHO.—According to reports, R. A. Cline, of Spokane, Wash., representative of the Shevlin-Clark Co., has been purchasing large quantities of timber holdings upon the river and the three tributaries emptying into Lake Coeur d'Alene, and will erect a lumber mill, to be located on the present Stack-Gibbs site at Lacrosse.

MURRAY BAY, QUE.—A contract has been awarded the BISHOP CONSTRUCTION CO., LTD., by the East Canada Power & Pulp Co., for the construction of a water power development and pulp mill on the Malbai River above Murray Bay. The plant will cost about $500,000.

SHERBROOKE, QUE.—The E. and T. Fairbanks Co., which was started here three years ago, is about to call for bids for doubling the capacity of the present plant.

ST. THOMAS, ONT.—A. E. PONSFORD has been awarded the contract for the proposed block to be erected here by the Monarch Knitting Co.

MISCELLANEOUS CONTRACTS.

(*******Denotes that this work is advertised in Engineering News.**)

U. S. RECLAMATION SERVICE.—All news concerning canal and irrigation projects, etc., will be found under Water Supply—Irrigation.

STEAMERS.—Rockland, Me.—The contract has been awarded to COBLEY, BUTLER & CO., for two large fishing steamers for the Atlantic Fertilizer & Oil Co., New York. Contract for boilers and other machinery has been awarded to the PORTLAND CO., Portland. Contract for a third steamer has been awarded to A. D. STOREY, Essex, Mass.

CELL LOCKING DEVICE.—Portsmouth, N. H.—Bids were received as follows on Dec. 3 by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for cell locking device, Navy Yard, Portsmouth: Stewart Iron Works Co., 1701 Madison St., Covington, Ky., Item 2, $20,717; Van Dorn Iron Works Co., 2685 East 79th St., Cleveland, Ohio, Item 1, $22,500; 2, $33,000; 3, $12,000; 4, $32,000.

DREDGING, DOCK, ETC.—Boston, Mass.—Bids will be received until Dec. 12, by Charles D. Daly, Fire Comr., for dredging, dock, building wharf, extending wharf and preparing berth for fire-boats.

TOWBOAT.—Boston, Mass.—The contract for towboats for breaking ice in the Charles River was awarded on Dec. 3 by the Metropolitan Park Commission to T. P. O'RJORDEN, Boston, at $3.25 per hour. Other bidders were: N. P. Doane, $5; Commercial Towboat Co., $10; Boston Towboat Co., $18. Bids are based on eight consecutive hours of work whenever demand is needed.

REMOVING WRECK.—Boston, Mass.—Bids will be received by Col. Frederic V. Abbot, Corps Engrs., U. S. A., until noon, Dec. 27, for removing the wreck of schooner Nat Ayer in Boston Harbor.

PIER.—Boston, Mass.—The contract for constructing the pier between piers Nos. 4 and 5 at the Navy Yard, Boston, has been awarded to the RIVERSIDE CONTRACTING CO., 39 Cortlandt St., New York, at $27,918. List of bidders noted on Oct. 27.

*DREDGING.—Newport, R. I.—Bids were received by Lieut.-Col. J. C. Sanford, Corps Engrs., U. S. A., Newport, on Dec. 3, for dredging Nantucket Harbor, Mass., as follows: Daly Q Hannon Dredging Co., Ogdenburg, N. Y., 20 cts. per cu. yd.; time, one year; Morris & Cummings Dredging Co., New York, 28.4 cts.; not stated; Coastwise Dredging Co., Norfolk, Va., 19.9 cts.; within seven months after notice of approval; Eastern Dredging Co., Boston, Mass., 26.9 cts.; nine months; J. S. Packard Dredging Co., Providence, R. I., 25.9 cts.; Oct. 1, 1911. Estimated quantity, 142,000 cu. yds.

*DREDGING.—Fort H. G. Wright, N. Y.—Bids were received on Nov. 30 by Capt F. T. Arnold, Constr. Q. M., U. S. A., New London, Conn., for dredging harbor at Fort H. G. Wright. The J. S. Packard Dredging Co., Providence, R. I., submitted the lowest bid.

HARBOR LINES.—New York, N. Y.—Plans were discussed on Nov. 29 by the New York Harbor Board for the establishment of U. S. harbor lines for Jamaica and Sheepshead Bays. Calvin Tomkins presented a plan for a deep water channel, about 1,000 ft. in width, to extend all around the bay front, from Rockaway Point, at the southwesterly corner, past Barren Island, and skirting the shore of the bay. It forms one loop of uninterrupted pierhead and bulkhead lines, both of which are made coincident except on the Rockaway Peninsula, where the pierhead line is about 300 ft. out beyond the bulkhead line. The proposed channel is 17 miles in length and the landward boundary is about 1,500 ft. from the high water mark on the shore or meadows. Interior basins are provided in the southeasterly portion of the bay, in the marsh land sections, near Far Rockaway. A canal is also provided to run a considerable distance inland back of Mill Island, and another to be provided by the dredging out of Garretson's Creek. No plans were proposed for the interior of the bay, and the question of piers and slips was left for subsequent treatment. The Board will meet again at 10 a. m., Dec. 1[illegible] at the Army Bldg., New York. Col. William T. Rossell, Corps Engrs., U. S. A., is Senior Member.

CLAY LOAM, CEMENT.—New York, N. Y.—Bids will be received until 3 p. m., Dec. 15, by the Park Board, Dept. of Parks, for furnishing and delivering 430 cu. yds. clay loam for parks, Boro. the Bronx, and for furnishing and delivering 500 barrels of Portland cement (Nov. 3, 1910), for parks, Boro. the Bronx. Charles B. Stover is Pres. Bd.

MANILA ROPE.—New York, N. Y.—Bids will be received by Calvin Tomkins, Comr. of Docks, until noon, Dec. 13, for Contract No. 1251, for furnishing and delivering manila rope.

RECREATION PIER WORK.—New York, N. Y.—Bids were received as follows on Nov. 25, by the Department of Docks and Ferries, for Contract 1246, for furnishing all the labor and materials required for preparing for, repairing and painting the recreation buildings on the piers at the foot of (a) East 112th St., Harlem River; (b) East Third St., East River; (c) West 129th St., North River and (d) West 50th St., North River, Boro. Manhattan. Aug. Wille, Jr., (a) $7,298, (b) $9,524, (c) $6,911, (d) $13,685; A. B. Londin, (a) $7,769, (b) $9,312, (c) $8,955, (d) $15,228; Chas. Schultz, (b) $6,649; N. B. Smyth, (a) $3,270, (b) $7,000, (c) $5,690, (d) $10,989; William Werner, (a) $7,989, (b) $11,688, (c) $8,349; William Horne Co., (a) $5,400, (b) $6,600, (c) $5,200, (d) $10,600; C. L. Dooley, (b) $8,469, (d) $12,311; J. M. Knopp, (a) $5,877, (b) $8,849, (c) $5,653, (d) $10,249; L. Dornbush, (b) $8,290; Louis Koenig, (c) $7,743, (d) $11,247; F. W. Saunders, (b) $6,900.

ENGINES.—New York, N. Y.—No bids were submitted on Nov. 29 to R. Waldo, Fire Comr., for furnishing and delivering two gasoline propelled and pumping engines.

REPAIRING FERRYBOAT.—New York, N. Y.—The contract has been awarded by the Department of Docks and Ferries to the JOHN N. ROBINS CO., 15 Whitehall St., New York, for repairing the municipal ferryboat Richmond, at $9,300.

BRASS.—New York, N. Y.—Bids will be received by the Park Board, Dept. of Parks, until 3 p. m., Dec. 15, for furnishing and delivering extruded brass for American Museum of Natural History, Boro. Manhattan.

MARKET HOUSE WORK.—New York, N. Y.—Bids will be received by George McAneny, Pres. Boro. Manhattan, until 2 p. m., Dec. 16, for laying cement flooring and installation of floor drains in Fulton Market situated at Fulton, Beekman, South and Water Sts., Boro. Manhattan.

REPAIRS TO PIER. New York, N. Y.—Bids for furnishing all the labor and materials required for making repairs to Pier 5, East River, Boro. Manhattan, were received on Oct. 27 by the Department of Docks and Ferries, as follows: Butler Bros. Construction Co., 1170 Broadway, New York, $13,588; William N. Jenks, $20,200; Riverside Construction Co., $18,318; Phoenix Construction Co., $18,200.

SUBWAYS.—New York, N. Y.—The Interborough Rapid Transit Co. has submitted to the Public Service Commission a proposition to build subways as follows: From Times Square under Seventh Ave., as extended, Varick St., West Broadway, and Greenwich St., to Liberty St., as a four-track road, and from Liberty St. to the Battery as a two-track road, with a branch from the intersection of Greenwich St. and Liberty St., under Liberty St. and East River to Pineapple and Fulton Sts., a connection with the Brooklyn extension of the existing subway, as a two-track road; with a further extension from the terminus of the Brooklyn extension of the existing subway at Atlantic Ave., under Flatbush Ave. and Eastern Parkway to Utica Ave. as a four-track road, and from Utica Ave. to Buffalo Ave., under Eastern Parkway, as a two-track road; also a two-track extension from the existing subway at Lafayette and Flatbush Ave., Brooklyn, under Lafayette Ave. to Broadway.

From about 35th St. and Park Ave., under Park Ave. and private property at or about 42d St. to Lexington Ave., thence under Lexington Ave. and the Harlem River to a point south of 149th St. as a four-track road; thence dividing, with two tracks to a connection, east of Mott Ave. station, with the West Farms branch of the existing subway; thence two tracks under Mott Ave., 153d St. and River Ave., to 157th St, and from 157th St. over River Ave. to about 162d St., as an elevated structure. At 162d St. and River Ave. a connection will be made with the Jerome Ave. extension of the Ninth Ave. elevated line of the Manhattan Elevated R. R.

A two-track subway extension diverging from the proposed Lexington Ave extension at about 138th St., and running thence under private property. 138th St., Southern Boulevard and Whitlock Ave., to a point in private property south of Westchester Ave.; thence as a three-track elevated railroad over Whitlock Ave. and Westchester Ave. to Pelham Bay Park.

A two-track elevated extension from the West Farms division of the present subway, at about 179th St., over private property to a point between Bronx Park and the property of the New York, Westchester & Boston

R. R. Co.; thence north over private property and public streets to Bear Swamp Road and White Plains Road; thence over White Plains Road to a connection with the proposed extension of the Third Ave. line of the Manhattan Elevated R. R., at a point north of the intersection of White Plains Road and Gun Hill Road.

The cost of construction and equipping the foregoing lines is estimated at $128,000,000.

DOCK.—Catskill, N. Y.—No immediate improvements are contemplated by the Hudson River Day Line here. Noted on Dec. 1.

PUBLIC BATH REPAIRS.—Bids will be received by George McAneny, Pres. Boro. Manhattan, until 2 p. m., Dec. 16, for repairs to the cement floors in the dressing and shower compartments of the public bath buildings situated as follows: 243-247 East 109th St., 232-234 West 60th St., 347-349 West 41st St., 133 Allen St., 83-85 Carmine St., Boro. Manhattan.

DRAINAGE.—Chatham, N. J.—A plan has been adopted, it is reported, by the Passaic Valley Drainage Commission for draining the territory between this place and Singac and restoring thousands of acres of land which is now submerged much of the time. The plan is to build a drainage canal, 20 ft. wide and 6 ft. deep, beginning at Deep o' Val Brook, southwest to the Passaic River, near where the Rockaway River empties into it.

JETTY WORK.—Wilmington, Del.—Bids for jetty work at the mouth of Broadkill River, Del., will be received by Maj. R. R. Raymond, Corps Engrs., U. S. A., Wilmington, until noon, Dec. 23.

DREDGING.—Wilmington, Del.—Bids were received on Dec. 5 by Maj. R. R. Raymond, Corps Engrs., U. S. A., for dredging Maurice River, N. J., as follows: American Dredging Co., Philadelphia, Pa., 17 cts. per cu. yd., place measurement; River & Harbor Improvement Co., Philadelphia, 23.8 cts.; Rickards Dredging Co., Philadelphia, 14 cts.

DREDGING.—Wilmington, Del.—Bids were received, as follows, by Maj. R. R. Raymond, Corps Engrs., U. S. A., Wilmington, on Dec. 1, for dredging Salem River, N. J.: River & Harbor Improvement Co., Philadelphia, Pa., 19.4 cts. per cu. yd., place measurement; American Dredging Co., Philadelphia, 21.5 cts.; Rickards Dredging Co., Philadelphia, 30 cts.

SHEDS, ETC.—Wilmington, Del.—The contract for the shelter sheds, platforms and stairways for the Baltimore & Ohio R. R. Co. here has been awarded to A. S. REED & BRO. CO., 815 Shipley St., Wilmington. M. C. Long, Baltimore & Ohio Bldg., Baltimore, is Arch.

FIRE HOSE.—Washington, D. C.—The Commissioners of the District of Columbia have awarded the contract for furnishing 4,200 ft. of 2½-in. fire hose for the remainder of the fiscal year, ending June 30, 1911, to the GUTTA PERCHA & RUBBER MFG. CO., New York at $1.10 per ft. and to the EUREKA FIRE HOSE CO., New York, for 9,000 ft. at $1.10. List of bidders noted on Nov. 24.

COPPER, STEEL, ETC.—Washington, D. C.—Bids will be received until Dec. 13 by the Bureau of Supplies and Accounts, Navy Dept., Washington, D. C., for furnishing at the navy yard and naval stations the following supplies: Washington, D. C., Schedule 3,132, 1,250 lbs. sheet copper, 89,800 lbs. hot rolled or forged steel; 2,300 lbs. sheet brass; 15,000 lbs. naval rod bronze. Schedule 3,133, 24 M ft. white oak; 24 M ft. North Carolina or Virginia pine; 18 M ft. commercial spruce, Brooklyn, N. Y. Schedule 3,135, 40,800 lbs. galvanized sheet steel. Schedule 3,137, 25 M ft. white pine; 6$ M ft. yellow pine. Schedule 3,139, 250,000 lbs. ingot copper. Schedule 3,140, 44,800 lbs. ingot tin. Norfolk, Va., Schedule 3,135, 40,000 lbs. sheet zinc; Schedule 3,139, 4,275 lbs. copper-pipe and tubing, 8,250 lbs. brass pipe, 1,200 lbs. naval brass, 700 lbs. sheet brass. Applications for proposals should designate the Schedules desired by number.

CANNON.—Washington, D. C.—Bids were received as follows by the Bureau of Ordnance, Navy Dept., Washington, for furnishing ten 14-in. nickel-steel breech-loading rifled cannons. Bethlehem Steel Co., South Bethlehem, Pa., $74,770 each; 13½ months for the first, and then one gun every two months. Midvale Steel Co., Philadelphia, Pa., $74,900 each, first gun in 14 months, one every two months.

DRAINAGE SYSTEM.—Wadesboro, N. C.—Surveys of the Brown Creek swamp district are being made near Wadesboro, with a view of constructing a drainage system. W. K. Allen, Wilmington, N. C., is Engr.

RETAINING WALL.—Morehead City, N. C.—Bids will be received until Dec. 12 by W. J. Hales, City Clk., for constructing 2,000 ft. of concrete retaining wall.

TRESTLE FILL.—Bolton, N. C.—The Waccamaw Lumber Co., Bolton, will sublet 13,019 cu. yds. of fill work to fill 3,600 ft. of trestle. The contractor is required to furnish all cars, tools, locomotives and equipment.

*DREDGING, ETC.—Jacksonville, Fla.—Bids will be received until noon, Jan. 5, by Capt. George R. Spalding, Corps Engrs., U. S. A., Jacksonville, for dredging in Sarasota Bay, Fla., and for sale of dredge "Suwanee."

LUMBER.—Bay Minette, Ala.—The Pensacola & Southwestern Ry. Co., which is constructing a road through the southern end of the county, has awarded a contract to the MIFLIN LUMBER CO. for 300,000 ft. B. M. of lumber to be used in the construction of the Perdido Bridge.

CANAL.—Houston, Miss.—Bids will be received within 30 days by the Commissioners of the Houlka Creek Drainage District No. 2 for constructing a drainage canal in Chickasaw County. The canal will be four miles long, 20 ft. wide and 5½ ft. deep, requiring 81,634 cu. yds. of excavation. Estimated cost, $9,000. Charles L. Wood, is Design Engr., Columbus, Mirs.

FIRE ALARM SYSTEM.—Louisville, Ky.—The Board of Public Safety on Nov. 16, received bids for the installation of the new central office fire alarm system to be located on the third floor of the City Hall Annex, as follows: The Gamewell Fire Alarm Telegraph Co., $30,500; Star Electric Co., $27,990.

HYDROTHERAPEUTIC PLANT.—Athens, Ohio.—Bids will be received until Dec. 23 by the Board of Trustees of the Athens State Hospital, Dr. O. O. Fordyce, Secy., for installing a hydrotherapeutic plant in the hospital.

ICE PLANT.—Cincinnati, Ohio.—About $50,000 will be spent for the erection of an all concrete ice plant on the east side of Emery St. Address Joseph Dunlacher, Cincinnati.

*FLATBOATS, BARGES.—Cincinnati, Ohio.—Bids will be received until noon, Jan. 4, by Maj. John C. Oakes, Corps Engrs., U. S. A., Cincinnati, for the construction of three steel flatboats and three steel barges.

DITCH.—Washington, Ind.—Bids will be received by Edward C. Faith, Ditch Comr., Daviess County, until Dec. 15, for the construction of the Colbert ditch.

FIRE ESCAPES.—Indianapolis, Ind.—The Board of Public Works will soon let the contract for placing the fire escapes on the City Hospital. B. H. Miller is City Engr.

TIMBER DOCK.—Michigan City, Ind.—Bids were received Nov. 22 by the city for the construction of about 800 lin. ft. of timber dock, as follows: G. E. Culbert, Michigan City, $16.40 per ft.; Great Lakes Dredge & Dock Co., Chicago, Ill., $17.20; Fitzsimmons & Connell Co., Chicago, $18.90.

DRIVING PILING.—Buchanan, Mich.—GEORGE E. CULBERT, Michigan City, Ind., has secured the contract for driving the piling for a river mill dam here.

FOUNTAIN.—Detroit, Mich.—The Common Council decided on Nov. 29 to accept the gift of the late James Scott of $500,000 for the erection of a fountain on Belle Isle.

DITCH.—Bloomington, Ill.—Bids will be received until Dec. 10 by McLean County for the construction of the Western Drainage District ditch. It will be about 6⅓ miles long and require about 122,000 cu. yds. of excavation.

DITCHES.—Hampton, Iowa.—The County Board has let the contract to SHRIVER & THOMAS, Galt, Iowa, at $28,824 for tile work ditches in District 8. Geo. L. Mechem has been appointed engineer to make a survey of district No. 16.

DITCH.—Cambridge, Minn.—The cost of the construction of ditch No. 9 has been estimated at $13,726. The contract will probably be awarded in the spring.

MOORHEAD, MINN.—A. O. Houghton, County Audr., will receive bids until 11 a. m., Jan. 20, for constructing ditch No. 25, comprising 64,720 cu. yds. excavation. Estimated cost, $7,127.

DITCH WORK.—Warren, Minn.—Bids will be received until Dec. 10 by A. C. Lundgren, County Audr., for constructing four corrugated iron culverts with concrete bulkheads along the line of judicial ditch No. 24, to be submitted per cu. yd. for bulkhead and per ft. for culverts.

RIVER IMPROVEMENT.—Winona, Minn.—The contract for furnishing 70,000 cu. yds. of brush to be used in the improvement work between here and St. Paul has been let to CAPT. FUGINA, Fountain City, Wis.

VACUUM CLEANING SYSTEM.—Omaha, Neb.—Bids will be received until Dec. 17 by the County Commissioners, Omaha, for installing a vacuum cleaning system in the court-house. D. M. Haverly is County Clk.; John Latenser, Bee Bldg., Omaha, is Arch.

REVETMENT.—Kansas City, Mo.—Bids will be received by the U. S. Engineer, Postal Bldg., Kansas City, until Jan. 5, for the construction of 13,000 ft. of willow and stone revetment, six miles below Kansas City, on the Missouri River. Estimated cost, $110,000.

DITCHES.—Batesville, Ark.—The award of contracts for drainage ditches in District No. 4, Independence County, about seven miles long, estimated to cost $18,000, has been indefinitely postponed. Lund & Hill, Little Rock, Ark., are Consult. Engrs. Noted on Nov. 17.

DITCH.—Pine Bluff, Ark.—The contract for the construction of the ditches in Drainage No. 1 of Lincoln County has been awarded to McALLISTER & PETERSON, Zion City, Ill., at 12 cts for the main and 17 cts. for the lateral ditches. W. T. Parkes is Engr., Pine Bluff. Noted on Nov. 17.

PIER.—Galveston, Tex.—The Southern Pacific Ry. Co. is preparing plans for rebuilding Pier C, lately burned. The pier will be about 1,400 ft. long. W. Hood is Ch. Engr., San Francisco, Cal.

DRAINAGE.—Houston, Tex.—The Cochran & McClure Land Co. will receive bids, care of J. M. Winfrey Engineering Co., 310 Stewart Bldg., Houston, until Dec. 10 for draining 4,000 acres of land in Brazoria County; 100,000 cu. yds. of excavation. Machine ditches are preferred.

DITCH.—Chandler, Okla.—Bids will be received until 9 a. m., Dec. 16, by C. A. Wightman, Engr. and Surv., Deep Ford Drainage District No. 1, Lincoln County, at the office of J. E. Rea, County Clk., Chandler, for the construction of a ditch for the district. Length, 40 miles. Estimated cost, $868,285.

RIVER WORK.—Oklahoma City, Okla.—The City Council is considering the straightening and widening of the Canadian River here. Estimated cost, $200,000.

LUMBER.—Spokane, Wash.—Bids will be received until 2 p. m., Dec. 9, by the city for 180,000 ft. of fir lumber f. o. b. cars Spokane.

CANAL WORK, DOCKS, ETC.—Seattle, Wash.—The city on Nov. 8 voted $1,750,000 for work on the Lake Washington Canal, for improvement of the Duwamish River, and for public dock work. R. H. Thomson is City Engr.

CREEK WORK.—Oroville, Cal.—The City Engineer has been instructed to prepare plans and specifications for deepening and widening the channel of Dry Creek in the southeastern section of the city.

STREET OILING MACHINE.—Santa Ana, Cal.—The City Trustees have instructed the City Clerk to ask for bids for a street oiling machine.

PARK IMPVT., FIRE EQUIPMENT.—Riverside, Cal.—The citizens on Nov. 26 voted to issue bonds for the improvement of Fairmount Park and for fire equipment.

WHARF.—Los Angeles, Cal.—The contract has been awarded by the city to the MERCEREAU BRIDGE & CONSTRUCTION CO., Pacific Electric Bldg., Los Angeles, for the construction of the municipal wharf in Wilmington Basin, Los Angeles Harbor, at $7,900 and $3.04 per cu. yd. for 1,500 cu. yds. of riprap. H. B. Ferris is Secy. Bd. Pub. Wks.

BREAKWATER.—Los Angeles, Cal.—Bids were received by Capt. W. P. Stokey, Corps Engrs., U. S. A., on Dec. 1, for finishing government breakwater at San Pedro, 142,400 tons (long) of rubble stone: Bly Bros. Stone Co., Los Angeles, $1.40 per long ton; Shattuck Ednign Co., Los Angeles, $1.67; W. S. Russell, 553 Bryson Block, Los Angeles, $1.38; North American Dredging Co., Los Angeles, $1.435.

RETAINING WALL.—Longbeach, Cal.—J. C. BEER, 2437 East Ocean Ave., Longbeach, has been awarded the contract for the construction of a concrete retaining wall along Marine Way, 556 ft. long, 25 ft. high, 5 ft. wide at the bottom and 1 ft. wide at the top, and to be used as a foundation for buildings to be erected on the bluff. Estimated cost, $20,000.

PIER.—Oceanpark, Cal.—The Oceanpark Service Ry. Co. has awarded a contract to FRASER'S MILLION DOLLAR PIER CO. for the construction of a pier, 80 × 500 ft. Cost, $22,070. Eager & Eager are Archs., Stacy Bldg., Los Angeles.

TORPEDO BOAT DESTROYER, ETC.—Ottawa, Ont.—Bids for six torpedo boat destroyers and four cruisers for the Canadian Navy will be asked, it is reported within the next 30 days.

STEAMER.—Toronto, Ont.—The COLLINGWOOD SHIPBUILDING CO. has been awarded a contract by the Niagara, St. Catharines & Toronto Navigation Co., for the construction of a new single-screw steamer to ply between Toronto and Port Balhousie, 200 ft. long, 38-ft. beam, triple expansion engine, speed 16 miles per hour, capable of carrying 1,000 passengers. The contract price is about $150,000.

DUMP SCOWS.—Ottawa, Ont.—Bids are asked by the Public Works Department until Dec. 9, for the construction of two 180-cu. yd. wooden dump scows for dredge "Mud Lark," British Columbia. R. C. Desrochers is Secy.

TRAVELING CRANE.—Winnipeg, Man.—Bids will be received until 11 a. m., Dec. 15, by the Chairman of the Board of Control, for furnishing an electric traveling crane. M. Peterson is Secy. Bd.

U. S. POSSESSIONS.

STEEL RODS, LUMBER.—Panama.—Bids will be received by Capt. F. C. Boggs, Corps Engrs., U. S. A., General Purchasing Officers, Isthmian Canal Comn., Washington, D. C., until Dec. 27, for furnishing for reinforcing 2,320,000 lbs. mechanical bond steel rods and 165,000 pounds round steel rods; also 50,000 ft. of flooring, 50,000 ft. of ceiling and 3,678,640 ft. of miscellaneous lumber.

RAILWAY SUPPLIES.—Panama.—Bids will be received until 2 p. m., Dec. 12, by Maj. Wendell L. Simpson, U. S. A., Asst. Purchasing Officer, Panama R. R. Co., 24 State St., New York, for furnishing miscellaneous railway supplies.

FOREIGN CONTRACTS.

(To insure prompt attention, letters on consular business should be addressed to The American Consul at ——————, ——————. Such letters are opened and attended to by whoever may be in charge of the office. If addressed to the consul, personally, letters are forwarded to him, unopened, should he be absent, and a delay thus intervenes. If, in the meantime, he shoudl have gone out of office, the matter may wholly escape attention.)

STEAMSHIP.—England.—The Cunard Steamship Co., London, will build a 50,000-ton steamship, 885 ft. long and 95 ft. 6 ins. wide. Estimated cost, about $10,000,000.

ELECTRIC TRAMWAY CARS.—England.—The Tramways Committee, Birmingham, will receive bids until Dec. 12 for the supply and erection of 60 electric tramway cars. Address Mr. A. Baker, Tramway Offices, 147 Corporation St., Birmingham.

ELECTRIFICATION OF RAILWAY.—Brazil.—The President of Brazil has approved the project of the electrification of the Victoria to Diamantina Railway as far as Itabira de Matta Dentro.

STEEL TRAMWAY PLATES.—Australia.—The Municipal Authorities of Melbourne will receive bids until Feb. 22 for supply and delivery f. o. b. port of shipment, of 2,000 steel tramway plates.

WATER-WORKS.—Haiti.—The President of Haiti has approved the bill passed by Congress authorizing the Department of Public Works to spend $140,000 for the installation of a new system of water-works in the city of Port-au-Prince.

GALVANIZED STEEL SHEETS.—South Africa.—Bids are asked by the South African Railways until noon, Dec. 23, for the supply of galvanized steel sheets. Bids are to be addressed to the Secretary to the Tender Board, Railway Headquarters Offices, Johannesburg.

(Continued on page 282.)

CONTRACT PRICES.

(* *Denotes that this work is advertised in Engineering News.*)

SEWERAGE SYSTEM.—Pekin, Ill.—The contract was awarded Nov. 30 by the city of Pekin, Ill., for sewers in districts Nos. 2 and 3, to the OTTAWA CONSTRUCTION CO., Ottawa, Ill. John W. Alvord and Chas. B. Burnick, of Chicago, Ill., are Engrs. The bidders, in both districts were: (A) OTTAWA CONSTRUCTION CO., Ottawa, Ill.; (B) Keys & McNamara, La Salle, Ill.; (C) Newman Sewer Construction Co., Evansville Ind.; (D) Reed Bros., Belleville, Ill.; (E) E. R. Harding Co., Racine, Wis.; (F) Jansen & Zoeller, Pekin, Ill.; (G) Johnsen & Thomsen, Racine, Wis.; (H) Engineer's estimate. The itemized bids were as follows:

SEWERAGE SYSTEM, PEKIN, ILL—DISTRICT NO. 2.

	A	B	C	D	E	F	G	H
1,956 lin. ft. 8-in. vit. pipe, cut 9.1 ft.	$0.59	$0.65	$0.53	$0.60	$0.62	$0.70	$0.65	$0.75
1,929 lin. ft. 10-in. vit. pipe, cut 7.2 ft.	.58	.65	.61	.58	.62	.725	.75	.30
4,789 lin. ft. 12-in. vit. pipe, cut 7.6 ft.	.65	.66	.72	.69	.70	.80	.80	.90
2,749 lin. ft. 15-in. vit. pipe, cut 7.5 ft.	.82	.85	.88	.88	.90	1.025	1.05	1.10
6,100 lin. ft. 18-in. vit. pipe, cut 2.4 ft.	1.13	1.13	1.10	1.12	1.30	1.36	1.30	1.45
803 lin. ft. 20-in. vit. pipe, cut 2 ft.	1.27	1.20	1.30	1.40	1.45	1.505	1.37	1.68
1,006 lin. ft. 24-in. vit. pipe, cut 2 ft.	1.40	1.36	1.40	1.70	1.70	2.00	2.25	1.98
1,939 lin. ft. 30-in. vit. pipe, cut 11 ft.	1.80	1.85	2.10	2.23	2.05	2.47	2.90	2.56
586 lin. ft. 36-in. vit. pipe, cut 13.8 ft.	3.64	3.70	4.10	4.64	3.75	5.00	5.00	5.00
98 manholes	30.00	30.00	30.00	32.50	30.00	35.00	40.00	35.00
131 catch basins	35.00	35.00	35.00	34.00	40.00	40.00	40.00	40.00
Bulkhead (lump sum)	200.00	250.00	360.00	350.00	600.00	400.00	25.00	400.00
250 lin. ft. 12-in. c.-i. pipe	2.00	2.00	1.70	1.75	3.00	4.00	1.50	2.00
lin. ft. 10-in. pipe for catch basin connect'n	.45	.50	.50	.58	1.00	.80	.50	....
Totals	$30,809	$31,278	$32,027	$33,152	$34,742	$38,723	$38,843	$39,994

SEWERAGE SYSTEM, PEKIN, ILL.—DISTRICT NO. 3.

	A	B	D	E	F	G	H
1,491 lin. ft. 8-in. vit. pipe, cut 8.5 ft.	$0.56	$0.60	$0.60	$0.52	$0.74	$0.65	$0.75
510 lin. ft. 10-in. vit. pipe, cut 7.1 ft.	.55	.55	.58	.60	.79	.75	.80
9,477 lin. ft. 12-in. vit. pipe, cut 7.5 ft.	.62	.62	.69	.65	.90	.80	.90
6,137 lin. ft. 15-in. vit. pipe, cut 8 ft.	.78	.78	.88	.85	1.10	1.05	1.10
17,742 lin. ft. 18-in. vit. pipe, cut 8 ft.	.96	.96	1.12	1.10	1.40	1.35	1.40
1,106 lin. ft. 20-in. vit. pipe, cut 8.2 ft.	1.17	1.17	1.40	1.25	1.58	1.50	1.65
2,531 lin. ft. 24-in. vit. pipe, cut 10.6 ft.	1.44	1.44	1.94	2.00	2.10	2.25	2.10
2,295 lin. ft. 30-in. vit. pipe, cut 10.9 ft.	1.68	1.68	2.23	2.25	2.50	2.50	2.50
510 lin. ft. 36-in. vit. pipe, cut 13.3 ft.	3.46	3.46	4.67	3.80	5.00	4.50	5.00
773 lin. ft. 42-in. vit. pipe, cut 15.5 ft.	4.19	4.19	5.50	4.50	6.45	6.00	6.48
450 lin. ft. 48-in. vit. pipe, cut 15.4 ft.	4.59	4.59	6.45	5.00	7.00	7.00	7.20
190 manholes	30.00	30.00	32.50	30.00	35.00	35.00	35.00
278 catch basins	35.00	35.00	34.00	40.00	40.00	38.00	40.00
1 bulkhead	300.00	300.00	450.00	300.00	500.00	500.00	500.00
150 lin. ft. 16-in. c.-i. pipe	3.00	3.00	3.50	4.50	4.00	3.75	4.00
lin. ft. 10-in. pipe for catch basin connections	.50	.50	.58	1.00	80.00	.50	.....
Totals	$60,954	$60,913	$70,715	$69,544	$83,981	$80,780	$84,192

FOREIGN CONTRACTS.

(Continued from Page 281.)

RAILWAY LINES.—Russia. — Permission has been granted to the following for the construction of railway lines: To Golovine, Sokoloff, Tarassoff, Alexandroff & Kourovsky for a line from Nijni Novgorod, via Malmyj to Kazan, and from Serapoul to the factories of Ijeff and Votkino, a total length of 660 miles; to M. Voronoff, for a line from the confluence of the Vytchegda and Vym Rivers to the naphtha regions of the Oukhta River, a tributary of the Petchora River; to Narychkine & Liders-Veimarn, for a line from Kholm, via Vladimir-Volynsky, Lontzk and Doubno, to Tcherny Ostroff, 220 miles.

SUBWAY LINE.—Brazil.—The final plans for the subway line from Plaza Once de Septiembre de Plaza de Mayo have been submitted to the municipal intendente of Buenos Aires. The tunnel, it is reported, will be much nearer the surface than is usually the case, the maximum depth at any point not exceeding seven meters. The mean velocity at which cars are to be run will be 18 kilos. per hour. The cars are not to be of uniform type. Some will be so constructed as to be adaptable for service either on the underground or service lines, as occasion may demand. The tunnel is to be a solid structure of brick and cement with an arched roof. At each of the stopping places there is to be a station with a wide platform, long enough to accommodate a train of eight cars.

EXAMINATIONS.

ULTRAVIOLET MICROSCOPE OPERATION.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on Jan. 18, to secure eligibles from which to make certification to fill a vacancy in the position of skilled mechanician, $960 a year, in the Bureau of Plant Industry, Department of Agriculture, Washington, D. C., and vacancies requiring similar qualifications as they may occur, unless it shall be decided in the interest of the service to fill the vacancy by reinstatement, transfer, or promotion. It is desired to secure eligibles qualified to assist in investigation work by means of the Ultraviolet Microscope. Applicants should have a knowledge of the installation and manipulation of the ultraviolet miscroscope. The examination will consist of the subjects mentioned below, weighted as indicated: Practical questions relating to the construction and use of the ultraviolet microscope, 30 points; Elementary physics, including electricity, 20 points; training and experience, 50 points. Applicants must have reached their 20th, but not their 40th birthday. Examination form 1312.

LABORATORY ASSISTANT IN CHEMISTRY.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on Jan. 4-5, to secure eligibles from which to make certification to fill such vacancies as may arise during the ensuing year in the position of Laboratory Assistant in Chemistry in the Bureau of Standards, Department of Commerce and Labor, at salaries varying from $1,000 to $1,400 a year, unless it shall be decided in the interest of the service to fill such vacancies by reinstatement, transfer, or promotion. The duties in connection with these positions will be of a routine nature for the most part of the first few years. Promotions are made to the more advanced work, involving original investigations, as opportunities arise and fitness is shown. The examination will consist of the subjects mentioned below, weighted as indicated: General physics, 25 points; General chemistry, 50 points; Education and experience, 25 points. Applicants must have reached their 21st, but not their 35th birthday. Examination form 1312.

TOPOGRAPHIC AID.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on Feb. 8, to secure eligibles for temporary employment as Topographic Aid under the Geological Survey during the field season, unless it shall be decided in the interest of the service to fill the vacancies by reinstatement, transfer, or promotion. The entrance salary ranges from $40 to $75 a month. The salaries paid will be governed by the rating of the eligibles in the subject of training and experience. Appointment to permanent positions will be made only of persons who qualify in and are certified from the Junior Topographer examination. An examination for Junior Topographer will be held on Feb. 9-10. An applicant who desires to be examined for both positions must file a separate application for each position. The examination for Topographic Aid (temporary) will consist of the subjects mentioned below, weighted as indicated: Mathematics (elementary practical questions), 15 points; Surveying (elementary practical questions), 15 points; Topographic drawing, 20 points; Letter writing, 10 points; Training and experience (rated on application), 40 points. Applicants must have reached their 20th but not their 40th birthday. Examination form 1312.

MECHANICAL DRAFTSMAN.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on Jan. 4-5, to secure eligibles from which to make certification to fill vacancies as they may occur in the position of Mechanical Draftsman in the Isthmian Canal Service. The entrance salaries of the positions to be filled as the result of this examination are as follows: Mechanical Draftsman, first class, $150 a month; second class, $125 a month; Mechanical Draftsman with marine experience, $125 a month; tracer, $100 a month. This examination will consist of the subjects mentioned below, weighted as indicated: Mathematics and practical calculations, comprising arithmetic, algebra to and including problems involving quadratics, geometry, mensuration, logarithms and use of tables, elementary problems in mechanics, and use of slide rule and the interpretation of formulae and correct working out of results in special cases, 25 points; Materials, comprising all the materials used in machine construction, 15 points; Drawing, involving a competent knowledge of machine construction and ability to draw neatly to scale, 25 points; Training and experience, 35 points. Applicants must have reached their 20th, but not their 45th birthday. Examination form 1312.

JUNIOR TOPOGRAPHER.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on Feb. 9-10, to secure eligibles from which to make certification to fill vacancies as they may occur in the position of Junior Topographer in the Geological Survey, at salaries ranging from $720 to $1,200 a year, unless it shall be decided in the interest of the service to fill the vacancies by reinstatement, transfer, or promotion. The salaries paid will be governed by the rating of the eligibles in the subject of training and experience. Appointment to permanent positions in the Geological Survey will be made from the register of Junior Topographer eligibles. An examination will be held on Feb. 8, to secure eligibles qualified as Topographic Aid, for temporary employment only, during the field season. An applicant who desires to be examined for both positions must file a separate application for each position. The examination will consist of the subjects mentioned below, weighted as indicated: Mathematics, 15 points; Surveying, use and care of instruments, and elements of astronomy as applied to surveying, 15 points; Contour construction (consisting of drawing contour lines from given perspective view), 25 points, Topographic drawing and lettering, 15 points; Training and experience, 30 points. Applicants must have reached their 20th, but not their 30th birthday. Examination form, 1312.

ASSISTANT GEOLOGIST.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on Feb. 9-10, to secure eligibles from which to make certification to fill vacancies as they may occur in the positions of Assistant Geologist and Junior Geologist in the Geological Survey, at salaries ranging from $75 per month to $1,620 a year, unless it shall be decided in the interest of the service to fill the vacancies by reinstatement, transfer, or promotion. The salaries will depend upon the experience and qualifications of the eligibles secured. In certain cases where only a portion of the time of the appointee can be given to the work of the Department, the compensation will be upon a per diem basis for the service rendered. Employment in the position of temporary field assistant will also be made from the resulting eligible list as far as possible. The compensation of such positions ranges from $60 to $100 a month, and the length of employment from three to seven months. The examination will consist of the subjects mentioned below, weighted as indicated: Elementary chemis-

LIST OF CONTRACTS PENDING.

Plans and Specifications on File.

The following plans (P.) and Specifications (S.) are on file for reference only unless otherwise noted) at the office of The Engineering News Publishing Co., 220 Broadway, New York.

Bids close.		Noted in issue of
12-10	**Pier, Bremerton, Wash.......(S.)**	**11-10**
12-15*	**Diversion work, Klamath Falls, Ore. (S)**	10-20
12-17	Paving, Norfolk, Va........(S.)	12- 1
12-22	Quay wall, Key West, Fla..(S.)	11-24
12-22	Steel caissons, New York....(S.)	11-10
1- 7	Dredging, Hawaii (U. S. Poss.) (S)	10-27
1- 7	Elec. capstan, Portsmouth, N. H. ....(S)	12- 8
1-21	Oil storage house, Bremerton, Wash. ....(S.)	12- 1

Light, Heat and Power Plants.

Bids close.		Noted in issue of
12- 9*	Heating, New York...............	11-17
12- 9	Elec. elevator, Louisville, Ky....	12- 8
12-10	Heating & vent., Ellendale, N. Dak.	12- 8
12-10	Elec. supplies, Fort Monroe Va..	12- 8
12-10	Electric light fixtures, Carrington, N. Dak..........	11-24
12-12	Furnishing misc. supplies, National Soldiers Home, Va.......	11-24
12-12	Franchise, Newport Cal......	11- 3
12-12	Electrical supplies, Toronto, Ont.	12- 1
12-12	Electrical equip., New York, N. Y.	12- 1
12-12	Lighting, New York, N. Y.......	12- 1
12-13	Wiring, Washington, D. C.......	11-17
12-14	Electrical work, Brooklyn, N. Y.	12- 1
12-15	Motor generator sets, Winnipeg, Man.	11-24
12-15	Heating & vent., Boston, Mass...	12- 8
12-17	Motor-driven capstan, Portsmouth, N. H.	12- 8
12-19	Elec. supplies, Vernon, B. C.....	12- 8
12-19	Elec. machinery, Jackson, Ohio..	12- 8
12-19	Building and miscl. supplies, Lexington, Mo........	11-24
12-19*	Motors, compressors, etc., Plainfield, N. J........	12- 1
12-21	Power plant, Buffalo, N. Y......	12- 8
12-22	Wiring and gas piping system, Jefferson, Mo.	12- 1
12-23*	Heating and vent. system, Oklahoma City, Okla........	12- 1
12-24	Street lighting, Boston, Mass....	11-17
12-27	Electrical work, New York, N. Y.	12- 8
12-29	Power plant, Sherbrooke, Que...	12- 1
1- 3	Wiring, New York, N. Y........	12- 8
1- 7	Elec. capstan, Portsmouth, N. H.	12- 8

Bridges.

Bids close.		Noted in issue of
12- 8	Bridge, Towson, Md.............	12- 8
12- 8	Bridge, etc., Shreveport, La.....	12- 8
12-12	Repairing bridge, Boston, Mass..	12- 8
12-12	Viaduct, St. Louis, Mo..........	12- 8
12-13	Bridges, Modesto, Cal.	12- 8
12-16	Bridges, Chandler, Okla........	12- 8
12-17	Bridge work, Cleveland, Ohio....	12- 1
12-19	Bridge, Jeffersonville, Ohio......	11-24
12-20	Bridge, Norwalk, Conn.	11-17
12-21*	Fender piers, Beaufort, N. C....	11-24
12-21	Bridges, Carroll, Iowa	12- 8
12-21	Bridges, Dallas, Tex............	12- 8
12-21	Bridges, Rome, N. Y............	12- 8
12-22	Bridge, Youngstown, Ohio.......	12- 1
12-29	Bridges, Muskogee, Okla........	12- 8
12-30	Substructure, Portland, Ore......	12- 8
1- 5	Bridge, Edwardsport, Ind........	11-24
1- 9	Highway bridges, East St. Louis, Ill.	12- 8
2- 1*	Bridge plans, etc., Richmond, Va.	12- 8

Buildings.

Bids close.		Noted in issue of
12- 8	High school, Jersey City, N. J....	12- 8
12-10	High school, Toledo, Ore.........	12- 8
12-12	Office building, Vancouver, B. C..	12- 8
12-12	Municipal hospital, Camden, N. J.	12- 8
12-12	Church, Port Arthur, Ont........	12- 1
12-14*	Post-office, Lead, S. Dak......	11-10
12-14	Hospital, New York, N. Y......	12- 8
12-15*	**Repair shop, Fort Monroe, Va. ......(Mfg. Pl.)**	**11-17**
12-15*	**Changes at post-office, etc., Montgomery, Ala. ....**	**11-17**
12-15*	**Prison, Wingdale, N. Y........**	**11-17**
12-15*	**Ice plant, etc., Fort Sill, Okla. ....(Mfg. Pl.).**	**11-24**
12-15	Schools, Monrovia, Cal..........	12- 1
12-19	Post-office, Lexington, Mo......	11-17
12-19	Building repairs, New York, N. Y.	12- 8
12-21	Building additions etc., Peterboro, Ont.	12- 8
12-21	Excavation, etc., Cleveland, Ohio..	12- 8
12-22	Stores, Boston, Mass...........	11-24
12-23*	Heating, etc., Oklahoma City, Okla.	11-24
12-23*	High school, Portland, Ore......	12- 8
12-27	Post-office, Missoula, Mont......	11-24
12-23	Plant, Athens, Ohio	12- 8
12-28	Court-house, Brookings, S. Dak..	12- 8
12-30	**Home, Alert Bay, B. C.........**	**12- 1**
1- 3	Dormitory, Oxford, Ohio.........	12- 8
1- 7	Post-office, Waycross, Ga........	12- 8
1-17	Building, Schuykill Haven, Pa..	12- 8
1-21	**Oil storage house, Bremerton, Wash. ....**	12- 1
1-26*	Building, Washington, D. C.....	12- 1
1-28	Foundry, Bremerton, Wash..... ....(Mfg. Pl.)	12- 8
1-31	Court-house, Onida, S. Dak.....	10-20
4-15	Plans, Havana, Cuba............	10-20

Water-Works.

Bids close.		Noted in issue of
12- 8	Well, Tracy, Minn..............	12- 8
12- 9	Pumping plant, Keithsburg, Ill..	12- 8
12- 9	Water-works, Stratton, Neb......	12- 8
12-10	Well, Fort George Wright, Wash.	12- 8
12-10	Canal work, Sanders, Mont......	12- 8
12-12	Water mains, Dover Ohio.......	12- 8
12-12*	Dam and reservoir, Pittsfield, Mass.	11-17
12-12	Pumping engine, Cleveland, Ohio.	12- 1
12-13*	Pumps, Seattle, Wash.	11-17
12-13	Water-wks. apparatus, New York.	11-24
12-13	Fire hydrants, Portland, Ore....	12- 1
12-15*	**Diversion work, Klamath Falls, Ore. ....**	**10-20**
12-14	Reservoir, etc., Canton, Ohio....	12- 8
12-14	Pumping, sta. work, New York..	12- 8
12-14	Standpipe, New York............	12- 8
12-15	Water pipe, etc., Lincoln, Neb....	12- 8
12-15	Reservoir work, Atlanta, Ga.....	12- 8
12-15	Filter plant, Yorkville, S. C......	12- 8
12-15	Distribution system, Lombard, Ill.	12- 8
12-15*	W.-Wks. Fayetteville, N. C....	11-24
12-16	Reservoir and well, Fort Crook, Neb.	12- 1
12-17	W.-wks. supplies, Carthage, Ohio.	12- 1
12-19	Water-main, Euclid, Ohio.......	12- 8
12-19	Water mains, Fargo, N. Dak....	12- 8
12-19	Pipe, San Jose, Cal.............	12- 8
12-20	Water main, Cleveland, Ohio....	11-24
12-20	Water-works, Cimarron, N. Mex.	11-24
12-20	Watermains, Port Townsend, Wash.	12- 1
12-22*	Water-wks., Oriskany Falls, N.Y.	12- 1
12-22	Water meters, Kansas City, Mo..	12- 8
12-24	Pumps, Fort Bayard, N. Mex....	12- 8
1- 1	Water-works, Corning, Cal......	12- 8
1-19	Water-works, filtration plant, Grand Rapids, Mich.....	12- 8
2- 1	Water pipe, sewer pipe, Souris, Man.	12- 1

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Bids close.		Noted in issue of
12-10	Sewers, Evansville, Ind..........	12- 8
12-12	Sewers, Hebron, Neb............	12- 8
12-12	Sewers, Chicago, Ill.............	12- 8
12-13	Sewers, South Bend, Ind........	12- 8
12-13	Sewers, Toronto, Ont...........	12- 8
12-13	Sewers, New York, N. Y........	12- 1
12-14	Sewers, New York, N. Y........	12- 1
12-15	Sewer materials, Orange, Cal....	12- 1
12-15	Sewers, Parkersburg, Va........	12- 8
12-19*	Sewers, Washington, D. C.......	12- 8
12-19	Sewers, Huntington, W. Va.....	11-24
12-20	Sewers, Shelbyville, Ind.........	12- 8
12-21	Sewers, Brooklyn, N. Y.........	12- 8
12-20	Sewer, Shelbyville, Ind..........	12- 8
12-23	Sewer, Olympia, Wash..........	11-24
1- 6	Sewer, Buffalo, Wyo............	11-24
1-21	Sewers, Fordyce, Ark...........	12- 8

Streets and Roads.

Bids close.		Noted in issue of
12- 9	Gravel road, Lafayette, Ind......	11-24
12- 9	Road impvts., Cincinnati, Ohio..	12- 1
12- 9	Street impts, Seattle, Wash.....	12- 8
12-12	Street improvements, Jersey City, N. J.	12- 8
12-12	Grading, etc., New York, N. Y...	12- 8
12-13	State roads, Hartford, Conn.....	12- 8
12-13	Paving, Crookston, Minn........	11- 3
12-13	Grading, etc., New York, N. Y...	12- 1
12-14	Grading, etc., Greenville, Ohio....	12- 8
12-14	Asphalt repairs, New York, N. Y.	12- 8
12-15	Curbing, etc., Newark, N. J......	12- 8
12-15	Paving, New York, N. Y.........	12- 8
12-15	Sidewalk, New York, N. Y......	12- 8
12-19	Gravel road, Williamsport, Ind...	12- 1
12-20	Sidewalk, Cleveland, Ohio.......	11-24
12-20	Paving, Tulsa, Okla.............	12- 1
12-20	Grading, etc., Woodsfield, Ohio..	12- 8
12-21	Curbing, etc., New York, N. Y...	12- 8
12-21	Road, Fort Wayne, Ind.........	12- 8
12-22	Roads, etc., Fort Leavenworth, Kan.	12- 8
12-22	Road, Logansport, Ind..........	11-24
12-22*	Paving, Wilmington, N. C......	11-24

Miscellaneous.

Bids close.		Noted in issue of
12- 9	**Drainage canal, Howard, Miss...**	**11-17**
12- 9*	**Removing rock ledge, Cincinnati, Ohio. ....**	**11-10**
12- 9	**Lumber, Seattle, Wash..........**	**11-24**
12- 9	**Lumber, Spokane, Wash.........**	**12- 8**
12-10	**Ditch-work, Warren, Minn......**	**12- 8**
12-10	**Drainage, Houston, Tex.........**	**12- 8**
12-10	**Dump scows, Ottawa, Ont.......**	**12- 8**
12-10	**Ditch, Bloomington, Ill..........**	**12- 8**
12-10	**Pier, Bremerton, Wash.........**	**11-10**
12-10	**Quay wall, Key West, Fla.......**	**11-10**
12-10*	**Dredging, Wilmington, Del......**	**11-17**
12-10	**Street sweeping, etc., Evansville, Ind. (Garbage) ....**	**12- 1**
12-10	**Ditch, Rensselaer, Ind..........**	**12- 1**
12-12	**Dredging rock removal, New York. ....**	11-10
12-12	**Fire protection, iron railing, New York, N. Y........**	12- 1
12-12	**Dredging, dock, etc., Boston, Mass**	12- 8
12-12	**Retaining wall, Morehead City, N. C. ....**	12- 8
12-12	**Elec. tramway cars, England (Foreign)......**	12- 8
12-12	**Railway supplies, Panama, (U. S. Poss.).......**	12- 8
12-13	**Manila rope, New York.........**	12- 8
12-13	**Copper steel, etc., Washington, D. C. ....**	12- 8
12-14	**Rock, Oakland, Cal............**	12- 1
12-14	**Dredging, Seattle, Wash........**	12- 1
12-15	**Dry-dock, etc., Argentina (Foreign). ....**	11-10
12-15	Cold storage and ice plant, Fort Sill, Okla.	12- 1
12-15	Clay loam, cement, New York..	12- 8
12-15	Traveling crane, Winnipeg, Man..	12- 8
12-15	Ditch, Washington, Ind........	12- 8
12-15	Brass, New York...............	12- 8
12-15	Street sweepers (garbage), New York.	12- 8
12-16	Ditch, Chandler, Okla..........	12- 8
12-16	Market house work, New York...	12- 8
12-16	Public bath repairs, New York...	12- 8
12-16	Garbage, etc., disposal (garbage), Atlanta, Ga........	12- 8
12-17	Vacuum cleaning system, Omaha, Neb.	12- 8
12-17*	Dredging, Providence, R. I....	11-17
12-17	Jetty work, Wilmington, Del....	12- 1
12-17	Dredging, Cleveland, Ohio......	12- 1
12-19*	Dredging, New York............	11-24
12-19*	Leaves for Weirs, Wheeling, W. Va.	11-24
12-19	Revenue cutters, Washington, D. C.	12- 1
12-19	Garbage removal (garbage), Guttenburg, N. J........	12- 8
12-21*	Dredging, New Haven, Conn....	11-24
12-21*	Sand and gravel, Montgomery, Ala.	11-24
12-22	Quay wall, Key West, Fla......	11-24
12-22	Lock gates, etc., Wheeling, W. Va.	11-24
12-22*	Pier work, Detroit, Mich.......	11-24
12-22	Steel caissons, New York......	11-10
12-22	Quay wall, Key West, Fla......	11-24
12-22	Sale of vessel, Washington, D. C.	12- 1
12-23	Fabricated steel, rivets, Los Angeles, Cal........	11-24
12-23	Jetty work, Wilmington, Del....	12- 8
12-23	Hydrotherapeutic plant, Athens, Ohio.	12- 8
12-23	Galvanized steel sheets, South Africa (Foreign)	12- 8
12-27	Removing wreck, Boston, Mass...	12- 8
12-27	Steel rods, lumber, Panama (U. S. Poss.)......	12- 8
12-27	Furnaces, etc (garbage) N. Y....	11-24
12-28*	Removing wreck, Wilmington, Del.	12- 1
1- 3	Buoy depot Prince Rupert, B. C.	12- 1
1- 3*	Dams and canal, Porto Rico.... ....U. S. Poss.)	12- 1
1- 4	Buoy steamer, Ottawa, Ont......	12- 1
1- 4*	Flatboats, barges, Cincinnati, O..	12- 8
1- 5*	Dredging, etc., Jacksonville, Fla..	12- 8
1- 5	Revetment, Kansas City, Mo.....	12- 8
1- 7	Dredging, Hawaii (U. S. Poss).	10-27
1- 9	Tramway plant and equipment, England ....(Foreign)	11-17
1 -17	Metal superstructures for bridges, Uruguay, ...(Foreign)	11-17
1-20	Ditch, Moorehead, Minn.........	12- 8
2-22	Steel tramway plates, Australia (Foreign)	12- 8

Examinations.

Examination date.		Noted in issue of
12-17	Assistant in Dairy Bacteriology, and Assistant in Dairy Chemistry, Washington, D. C.........	11-17
12-20	Chief Inspector, Boston, Mass...	12- 1
12-28	Industrial teacher, Washington, D. C.	11-10
12-30	Assistant Physiologist in Plant Nutrition, Wash., D. C.........	12- 1
1- 4	Chemist in Forest Products, Washington, D. C.......	11- 3
1- 4	Mechanical Draftsman, Washington, D. C.	11-17
1- 4	Metallurgical Chemist and Assayer, Washington, D. C........	11-17
1- 4	Physical Laboratory Helper, Washington, D. C.	11-17
1- 4	Mechanical and Chart Draftsman, Washington, D. C.	11-17
1- 4	Mechanical draftsman, Washington, D. C.	12- 8
1- 4	Laboratory Asst. in Chemistry, Washington, D. C.	12- 8
1-18	Ultraviolet Microscope Operator, Washington, D. C.	12- 8
2- 9	Asst. Geologist, Washington, D. C.	12- 8
2- 9	Junior Topographer, Washington, D. C.	12- 8
2- 8	Topographic Aid, Washington, D. C.	12- 8

try, physics and mathematics, 10 points; Translation into English of scientific matter, either French or German, 5 points; General geology and mineralogy, 10 points; Essay on a geologic subject, accompanied by drawings (both English composition and drawings will be rated on this subject), 25 points; Geology, special subjects: (a) Economic geology; (b) paleontology; (c) petrology; (d) stratigraphy, 20 points; Training and experience, 30 points. Applicants must have reached their 20th birthday. Examination form 1312.

INDUSTRIAL NOTES.

MOGOLLON GOLD & COPPER CO., at Cooney, N. Mex., have placed an order with Tate, Jones & Co., Inc., Pittsburg, Pa., for oil burning equipment, to be applied to the boilers. This plant is 90 miles from a railroad.

THE HANNA ENGINEERING WORKS, Chicago, Ill., have just obtained an order from the American Bridge Co. for equipping the new Gary, Ind., plant with 24 Hanna Type compression yoke riveters, ranging in size from 4-in. reach to 60-in. reach, and from 40-tons to 64-tons pressure on the die. With this installation, the American Bridge Co. will have in the neighborhood of 75 riveters of this type in use.

RAIL ORDERS RECEIVED by steel manufacturers have been conspicuously small. The "Journal of Commerce" is the authority for the statement that during the first eleven months of this year the railroads have contracted for 1,280,000 tons of rail. This includes separate orders. In 1909 purchases of rails aggregated 3,300.000 tons. Even this is small compared with the rolling capacity of the country, which is close to 6,000,000 tons a year. A few car orders have come out recently and the Pittsburg & Shawmut R. R. is expected to place an order in the near future for 2,800 coal and box cars, and ten locomotives.

THE FIRST SUBTERRANEAN STREET is to be constructed, and plans and drawings have been completed. It is to be bored through Fort George Hill from Broadway to St. Nicholas Ave., and when finished will connect the new subway station at St. Nicholas Ave. and 190th St., with Broadway. As laid out, this street, which will probably be known as "109th St. South," will in reality be a tunnel 16 ft. sq. and 1,000 ft. in length. It will begin on the surface of Broadway at Fairview Ave. and will pierce Fort George Hill for a distance of nearly 1,000 ft. It will end at the station of the Broadway branch of the subway now nearing completion under 190th St. At that point the subterranean street will be 150 ft. under the surface of St. Nicholas Ave.

THE NUMBER OF IDLE FREIGHT CARS increased rapidly in the fortnight ending Nov. 23, according to the bulletin of the American Railway Association. Following is a table showing the surpluses at various dates:

	Net Surplus.
Nov. 23	28,393
Nov. 9	13,581
Oct. 26	7,235
Oct. 12	13,316
Sept. 28	24,528
Sept. 14	47,076
Aug. 31	50,729
Aug. 17	73,679
Aug. 3	102,781
July 20	133,301
July 6	142,865
June 22	122,915
June 8	126,497
May 25	110,661
May 11	122,593
April 27	96,319
April 13	77,357
March 30	25,886
March 17	17,342
Feb. 16	31,204
Jan. 19	24,992
Dec. 22, 1909	24,054
Nov. 24, 1909	27,496

DUSSELDORF, THE INDUSTRIAL CITY, is one of the best governed cities in the world. It has dreamed dreams and dared to carry them into execution. It is almost as beautiful as Washington, as full of the joy of living as Paris, and is managed with more scrupulous honesty, more scientific efficiency, and more devoted pride than almost any American business corporation. The city is built for the comfort and convenience of its people. It is designed as master architects might design a world's fair to which all mankind was invited for education, recreation and art. But the thing that most distinguishes Dusseldorf is this—her people and her officials seem to appreciate that congestion of population has made it necessary for the city to own many things and do many things. And these German citizens understand, too, that the things the city does not own must be regulated and controlled to prevent them harming city or citizens.

Dusseldorf does more things for its people than any city I know. It owns its street railroads and the controlling interest in a system of interurban railroads; it owns its harbors and its docks and its slaughterhouses, its gas, electric light and water plants; it operates three separate banking and loan enterprises, a large wine business, several restaurants and milk depots; it owns and rents suburban villas and large apartment houses; it is a great land speculator and city land owner; it possesses art galleries, an opera house, museums and exposition hall, and indirectly owns the leading hotel in the city. It has public baths and cemeteries and pawnshops.

Dusseldorf has made a beginning at homing its people. It is the owner of suburban villas and model tenement houses and is a stockholder in a scheme of cooperative apartment houses in which the workmen are joint owners. The country villas rent for from six to seven dollars a month. A three-or-four-room apartment in the city rents for about the same sum. The rooms in the latter are twice the size of those of the tenement house in America, and all of them have outside air. The cooperative apartments are built about courtyards which serve as playgrounds and are surrounded by flower gardens. There is free water and a scullery with every flat of three rooms or more.

In order to secure an apartment in one of these desirable buildings, the tenant must become a shareholder in the company, buying five dollars' worth of stock. The tenants are not the recipients of charity. On the contrary, they are part owners and cooperate in the management. They elect a house manager, who collects the rents and represents them before the company. The tenant stockholders receive four per cent. a year on their investment, and the company agrees to redeem their stock at any time on six months' notice. There are five hundred such apartments in the city and ten large apartment houses in process of building.—F. C. Howe, in Hampton's Magazine.

TRADE PUBLICATIONS.

POWER PLANT APPLIANCES.—Liberty Mfg. Co., 6910 Susquehanna St., Pittsburg, Pa. Paper; 6¼ × 9¼ ins.; illustrated.

This is a set of separate bulletins dealing with different styles of boiler tube cleaners, blow-off valves, oil purifiers, separators, feed-water regulators, etc. There are three types of tube cleaners, the "Niagara," the "Liberty" and the "Cyclone."

WATERPROOFING CONCRETE. — Ironite Co., 84 La Salle St., Chicago. Paper; 6¼ × 9¼ ins.; pp. 32; illustrated.

The "Ironite" waterproofing material is a fine mineral powder which is made into a solution and applied to the surface of the concrete with a brush, so as to fill and seal the voids. It may be used also by mixing it with the dry cement before the concrete is made. There are instructions for use and a number of testimonials. Also views of buildings, reservoirs, paving and train-shed roofing in which the material has been used.

ELECTRIC LAMPS.—National Electric Lamp Association, Cleveland, Ohio. Paper; two pamphlets; 6 × 9 ins.; pp. 34 and 13; illustrated.

The large pamphlet contains a paper on "High Efficiency Lamps," read before the National Electric Light Association by Mr. S. E. Doane. It has also some comments from the technical press discussing this paper. The smaller pamphlet reviews the engineering and research work of the National Electric Lamp Association, which is an organization maintained by the joint support of a number of manufacturing companies.

EXCAVATING MACHINERY.—F. C. Austin Drainage Excavator Co., Railway Exchange Bldg., Chicago, Ill. Stiff paper; 10 × 6¾ ins.; pp. 72; illustrated.

Austin ditching machines are quite familiar to all engaged in this class of work. This catalog consists chiefly of illustrations of these machines and work on which they are used. A number of original earthwork tables are included, and also a table showing the number of cubic yards in each 100 ft. length of ditch for a 1 to 1 slope, for bottom widths of from 4 to 30 ft. Besides ditching machines, there are descriptions of a levee building machine, a drag line excavator and sewer trenching machines.

STEAM SHOVELS.—The Thew Automatic Shovel Co., Lorain, Ohio. Paper; 9 × 6 ins.; illustrated.

The special feature of the Thew machine is in having a short dipper handle which does not project through the boom, but has its end pivoted to a carriage which is given a horizontal travel. The larger machines are mounted on trucks, and have the usual arrangement of swinging boom. The smaller machines have four wheels and are of the locomotive crane type, with the engines, boiler, boom, etc., all mounted upon a revolving platform. The illustrations show the machines in operation at various classes of work, including mine excavation. The machines may be operated by compressed air or electric current.

VALVES, STEAM TRAPS AND STRAINERS.—Elliott Co., 6907 Susquehanna St., Pittsburg, Pa. Paper; 6¾ × 10 ins.; three pamphlets.; pp. 10, 10 and 4; illustrated.

Reducing valves (including a combined reducing and relief valve) for steam, air or liquids, is described in one of the larger pamphlets, while the other relates to a steam trap which always discharges at 212° F. (instead of at fill pressure. The small pamphlet relates to a twin strainer for removing foreign matter from water supply. This device is intended for use on water mains, pump suctions, feed-water pipes, etc., where continuous straining is required. Either one of the strainers can be thrown out of use for cleaning, while the other remains in action.

CONCRETE MIXERS.—Municipal Engineering & Contracting Co., Railway Exchange Bldg., Chicago, Ill. Stiff paper; 9 × 6 ins.; pp. 60; illustrated.

The Chicago Improved cube concrete mixer is the subject of this catalog. The various advantages of the cube form of mixer is described here at considerable length, and illustrated by half-tone and line cuts. It is interesting to note, as stated in this catalog, that cube mixers are used exclusively on the Panama Canal work, where numerous concrete mixing records have recently been established. Various special types for street paving work are illustrated and described. The last few pages contain some interesting data on the determination of the correct proportions for concrete, how to select the right size of mixer, size and weight of barrels of cement, etc.

CENTRIFUGAL PUMPS.—The American Well Works, Aurora, Ill. Catalog 117. Paper; 7¾ × 10¾ ins.; pp. 127; illustrated.

This handsome publication relates exclusively to the company's centrifugal pumps (of the volute and turbine types), which are shown in great variety of design and dimensions. They include deep-well pumps having multiple-stage turbine impellers within the well casing, the vertical shaft being driven by a motor or belt pulley. There is also a sinking pump for mines and shafts in which a vertical shaft centrifugal pump and electric motor are mounted together in a cage suspended in the shaft. In addition to the pumps and pumping outfits there are a number of views of installations where the pumps are in use. About 20 pages are devoted to information relating to weir boxes, flow and measurement of water, friction of water in pipes, velocity heads, etc.

STEAM SHOVELS. — The Marion Steam Shovel Co., Marion, O. Cloth; 6 × 9 ins.; pp. 141; illustrated.

An examination of the numerous half-tone engravings in this handsome publication gives a very clear idea of the great variety of forms in which the steam shovel is made, and also of the great variety of work upon which it is employed. About 30 pages are given to particulars of the company's plant and a review of the mechanical construction and special features of its steam shovels. Several particulars and dimensions are given also for each of the various designs. The ordinary shovels range from 23 to 116 tons in weight, and there are special modifications for tunnel and trench work (with low and high lift, respectively). Electrically operated shovels are shown; also revolving shovels mounted on railway wheels or upon wide traction wheels, and equipped with a steam steering device. Other special machines include a railway ditching machine (which is a small revolving shovel traveling along the construction train); dipper and ladder dredges for drainage and general work and for placer mining; log loading locomotive cranes and ballast unloading plows. A large number of interesting engravings show the various machines in use on work in this country and abroad, including the Panama Canal, the Zanzibar Ry. (Africa), and a cement plant in Sweden. There is also a long list of users of the company's machines, some of them having from 16 to 76 steam shovels.

DESIGNING and DETAILING of SIMPLE STEEL STRUCTURES

By CLYDE T. MORRIS, C. E., Professor of Structural Engineering, Ohio State University. *Second Edition*

TABLE OF CONTENTS.—CHAPTER I.—RIVETING.—Dimensions of Rivets. Rivet Holes, Driving Rivets, Theory of Riveting, Requirements for a good Riveted Joint, Proper Sizes of Rivets, Spacing of Rivets, Kinds of Joints, Design of Riveted Connections, Example of Riveted Joints, Net-sections of Tension Members, Eccentric Stresses in Riveted Connections, Showing Rivets on Drawings. CHAPTER II.—DESIGNING AND ESTIMATING.—Kinds of Structural Steel Work, Kinds of Shops, Proposals and Contracts, Designs and Estimates, Time Savers, Order of Estimating, Specifications, Stress Sheets and General Plans. CHAPTER III.—MANUFACTURE AND ERECTION.—Shop Operations, Erection, Drafting Department, A Draftsman's Equipment, Ordering Materials, Shop Drawings, Order of Procedure for a Pin-Connected Bridge, Order of Procedure for Plate Girder Bridge, Shop Bills, Shipment, Materials, Inspection. CHAPTER IV.—ROOFS.—Construction, Roof Coverings, Types of Trusses, Building Construction, Loads, Stresses, The Design of a Roof, The Detail Drawings. CHAPTER V.—PLATE GIRDER BRIDGES.—Construction and Uses, Stresses in Girders, The Web, The Flanges, Economic Depth, Stiffeners, Web Splices, Flange Riveting, Flange Splices, Design of a Stringer, Design of a Deck Plate Girder Bridge, Through Plate Girders. CHAPTER VI.—PIN-CONNECTED BRIDGES.—Construction, Types of Trusses, Loads, Tension Members, Compression Members, Lateral Systems, Design of a Pin-Connected Railway Bridge, Dead Load, The Depth, Stresses, Design of Tension Members, Design of Compression Members, Design of the End Posts, The Portal Bracing, Design of Floor Beams, Top Lateral Bracing, Bottom Lateral Bracing, Shoes and Rollers, Estimates and Stress Sheet. CHAPTER VII.—DETAILS OF PIN-CONNECTED BRIDGES.—Pins, Calculation of Pins, Details of a Riveted Tension Member, Location of Pins in Top Chord and End Post, Lacing and Compression Members, Details of the Floor Beams.

The object sought in this book is to collect from the many larger and more exhaustive works on structural steel design, those parts which are applicable to simple structures, and which can be taken up in technical schools in the limited time usually allotted to the subject; and at the same time, to show by general cases and specific examples how the simple laws of statics may be applied to the details of steel structures with the object of producing details which are in accord with the stresses they have to transmit.

It is presumed that the student has already finished a course in stresses, and little time is given here to the methods of calculating the primary stresses in structures.

By the illustrations given and the methods employed, the reasons will be made apparent for many of the details commonly employed in structural work, and which are many times put in by "rule of thumb," often without due consideration of the stresses they have to carry.

"This book takes up the little things glossed over in nearly all books dealing with roof and bridge design, but which in practical works are brought most sharply to the attention of the young engineer. The author could not have written such a thoroughly good work without considerable experience at the designing board. It is full of practical information, and a careful reading will enable a student soon to feel at home in a drafting office."—*Railway Age Gazette.*

"This book is an excellent one for the student in structural design as it contains information which is usually found scattered through a number of text-books. It is also a good reference book for the man whose mind has become a little hazy on the considerations which determine a good design."—*Journal of the Worcester Polytechnic Institute.*

"The art of producing "details which are in accord with the stresses they have to transmit has been practically overlooked, or left to be picked up by the engineer as best he may in practice. This work, therefore, fills a real need."—*Journal of the Western Society of Engineers.*

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For other Proposal Advertisements see pages 51, 52, 53, 54, 56 of Advertisements and Construction News page 284.

BRIDGE.

Portland, Ore.

Sealed proposals addressed to the Mayor and Executive Board of the City of Portland, Oregon, for the building of the substructure of a bridge over the Willamette River on a westerly extension of Broadway Street in said city, will be received up to noon of Friday, December 30, 1910.

Plans, specifications and bidding papers will be on file in the City Engineer's office at Portland or may be obtained from Ralph Modjeski, Monadnock Building, Chicago, Illinois, by sending with order a guaranteed deposit check of twenty-five dollars, which amount will be refunded later if papers be returned in good order.

All tenders are to be sealed and marked on the outside, "Tenders for Substructure of Broadway Bridge."

No proposal or bid will be considered unless accompanied by a check payable to the order of the Mayor of the City of Portland, certified by a responsible bank, for an amount equal to 10 per cent. of the proposal, to be forfeited as fixed and liquidated damages in case the bidder neglects or refuse to enter into contract and provide a suitable bond for the faithful performance of said work in the event the contract is awarded to him.

The city reserves the right to reject any and all bids.

By order of the Executive Board.

A. L. BARBUR.
Auditor of the City of Portland.

OFFICE OF THE CONSTRUCTING QUARTERMASTER, New London, Conn., Dec. 6th, 1910.—Sealed proposals for connecting tubular wells, building pumphouse, furnishing and installing gasoline engine and pump, at Fort Terry, New York, will be received here until 11 A. M., Dec. 27th, 1910. Information furnished on application to CAPTAIN F. T. ARNOLD, Constructing Quartermaster, New London, Conn.

SEWER CONSTRUCTION.

OFFICE OF THE COMMISSIONERS OF SEWERAGE OF LOUISVILLE, KY.,
Incorporated.

Sealed proposals for the construction of Section "C" Middle Fork Sewer, Contract No. 76, will be received at the office of the Commissioners of Sewerage, 605 Equitable Building, Louisville, Ky., until 12 o'clock noon, Dec. 30, 1910.

The work consists mainly of the construction of about 2,700 feet of concrete sewer, diameter 33", including 2,700 feet of earth excavation, depth 5 ft. to 30 ft. and about 600 cu. yds. of concrete.

Plans and specifications may be seen at the office of the Commissioners, and at the office of Harrison P. Eddy, Consulting Engineer, 14 Beacon St., Boston, Mass.

Sealed bids should be endorsed "Proposal for Section "C" Middle Fork Sewer," and addressed to the Commissioners of Sewerage, Equitable Building, Louisville, Ky. Each bid must be accompanied by a certified check for at least seven per cent. (7%) of the total amount of the bid, or a "Bidder's Bond," as described in the form of proposal,

P. L. ATHERTON,
Chairman.
CHAS. P. WEAVER,
Secy. & Treas.
J. B. F. BREED, Chief Engineer.

BRIDGE.

Stone Harbor, N. J.

Proposals will be received by the Engineer for the Superstructure, Operating Machinery, and Equipment for a Railway and Highway Scherzer Rolling Lift Bridge over Great Channel at Stone Harbor, New Jersey, for the South Jersey Realty Co., until Dec. 24, 1910.

The bridge is a single leaf type railway and highway span of 60 ft. center to center of bearings and includes approximately 146,000 pounds of structural steel, 24,000 pounds of track and segmental castings, 9,000 pounds of machinery and 390,000 pounds of cast iron and composition in the counterweight.

Plans and specifications are on file at the office of the Engineering News, and copies will be furnished to responsible bidders by the Engineer.

WILLIAM H. FORD,
Arcade Building,
Philadelphia, Pa.

WATER-WORKS.

Angola, N. Y.

Sealed proposals will be received by the Board of Trustees of the Village of Angola, Erie Co., N. Y., up to 8 o'clock P. M. of Wednesday, January 11th, 1911, for furnishing the materials and constructing a system of water-works for said village.

There will be required approximately the following:

850 Tons (7¼) miles Cast-Iron Pipe.
50 Fire Hydrants.
38 Valves and Boxes.
Pumping Station, Impounding well, etc.,
2 Power pumps, 2 Gas Engines.
Steel standpipe, etc.

Bids will be received for furnishing any of the materials mentioned above or for constructing the works complete. A certified check, equal to 2% of the amount of bid, must accompany each bid. Plans may be seen and specifications may be obtained with blank forms of proposals, at the office of the Clerk, Geo. L. Peck, Angola, N. Y., or at the office of the engineers, Witmer & Brown, Room No. 2 Chapin Block, Buffalo, N. Y.

The right is reserved to reject any and all bids.

FRANK SWEETLAND, M. D.,
President.
JOHN W. BAUMAN,
JOSEPH FROEHLEY,
HERMAN KOEHLER,
EDWARD CLARK,
Trustees.
GEO. L. PECK, Clerk,
WITMER & BROWN, Engineers,
Chapin Block, Buffalo, N. Y.
Angola, N. Y., Dec. 5, 1910.

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